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The Jahurul Islam Medical Journal (JIMJ) is to be published twice in a year (January, July) with the aim to provide a forum for publication of new findings on issues pertinent to medical science.

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Editorial

Challenges and opportunities of Clinical practice in community medicine

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**For Correspondence*

Clinical practice with community health perspective makes community medicine a unique specialty. Community physicians not only implement disease prevention programs, assess community health needs, manage healthcare teams and advocate for health promoting policies but also diagnose and treat diseases. Provisioning of comprehensive health care to all members of the community is one of the major responsibilities of Community Medicine Doctors; however, the extent of their involvement in clinical care varies between countries and within a country depending on the way health systems have evolved historically in a particular context.[1]

Community-oriented doctors may provide comprehensive primary health care to the entire community through the health center, clinic, or dispensary which includes the diagnosis and treatment of acute and chronic illnesses for children, adults and elderly, preventive checkups, routine maternity and newborn care, immunizations, and mental health care in consultation with other specialists when needed. Their involvement in the follow-up care throughout life enhances the understanding of the medical history of the patients and their participation in home care establishes a knowledge base and relationship with the community they serve.

Clinical practice with a community health perspective is what makes community medicine a unique specialty. [2] Community medicine practitioners not only diagnose and treat diseases in their health center clinics but their practices also include prevention of diseases and disabilities and promotion of health in the community served by their health centers. Thus denotes focus on disease prevention and health promotion in addition to the traditional role of curative care performed by other doctors.

In adding to their above-mentioned clinical duties, community medicine specialists also plan and organize healthcare in the community by assessment of community needs using epidemiological methods and manage the health-care teams comprising nurses, pharmacist, laboratory technicians, health assistants, health workers, and accredited social health activists. In their statistical roles they also advocate for changes in the social policies to address social determinants of health.[3]

Using common data collection protocols and information technology tools, a large dataset can be built up for analysis of epidemiological trends in morbidity and mortality and for carrying out operational and implementation research.

Strategies need to be developed for overcoming the administrative, financial and infrastructure constraints and for changing the beliefs and attitudes of faculty to increase the involvement of community medicine faculty in the delivery of clinical care in the community.

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Original Article

Serum Total Cholesterol (TC)& Low Density Lipoprotein Cholesterol (LDLc) in Hypertensive Individuals : A Case Control Study

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Abstract

Background: *Hypertension is recognized as the most common cardiovascular disorder and a leading cause of morbidity and mortality in both developed and developing countries. Increased level of serum total cholesterol & low density lipoprotein cholesterol can cause atherosclerosis & lead to develop hypertension.*

Objective: *The objective of the study was to evaluate the relationship between serum total cholesterol& low density lipoprotein cholesterol with hypertension.*

Methods: *A total of 100 subjects were enrolled by purposive and convenient sampling. Study population were divided into case and control group based on presence or absence of hypertension respectively. Serum total cholesterol& low density lipoprotein cholesterol were measured in both group and compared.*

Results: *Patients of case & control group were similar in terms of age and sex. Serum total cholesterol & low density lipoprotein cholesterol were significantly ($p< 0.001$) higher in case group than control group. A significant positive correlation between serum total cholesterol and low density lipoprotein cholesterol with Systolic blood pressure (SBP) & Diastolic blood pressure (DBP) was observed.*

Conclusion: *From this study it can be concluded that increased level of serum total cholesterol & low density lipoprotein cholesterol is associated with hypertension. Increased level of serum total cholesterol & low density lipoprotein cholesterol is found to be significantly and positively correlated with Systolic blood pressure (SBP) and Diastolic blood pressure (DBP).*

Key words: *Serum total cholesterol, Low density lipoprotein cholesterol & Hypertension.*

Introduction

Hypertension is the most common cardiovascular disorder and a leading cause of morbidity and mortality in both developing and developed countries[1].Essential hypertension has been appropriately called the silent killer because it is usually asymptomatic and undetected[2]. Hypertension has also been recognized as one of ten leading causes of death with about 4% of such deaths due to hypertensive complications[3]. Hypertension accounts for an estimated 54 percent of all strokes and 47 percent of all ischemic heart disease events globally[4]. Hypertension in adult is diagnosed when the average of two or more diastolic and systolic blood pressure measurements on at least two subsequent visits are more than 90 and 140 mm Hg respectively[5]. The prevalence of hypertension is increasing day by day. The estimated total number of adults with hypertension in 2000 was 972 million. Of these, 333 million were estimated to be in economically developed countries and 639 million in economically developing countries. By 2025, the number of people with hypertension will increase by about 60% to a total of 1.56 billion as the proportion of elderly people will increase significantly. Since the proportion of hypertensive people will increase dramatically worldwide, the prevention, detection, treatment and control of this condition should be a top priority[6].Various risk factors are responsible for development of hypertension. Among them

elevated level of serum cholesterol is claimed to be a risk factor. Refference value of fasting serum low density lipoprotein cholesterol& total cholesterol is < 130 mg/ dl & 120-200 mg/ dl respectively [7]. Recently evidence suggests that elevated serum cholesterol is an independent risk factor for coronary heart disease. Low density lipopreotein cholesterol is atherogenic in nature. Circulating LDLc undergoes chemical modification by super oxide and produce oxidized LDLc which is chemotactic in nature. Macrophages consume excess modified oxidized LDLc, becoming foam cells. Foam cells accumulate, release growth factors, cytokines and ultimately participates in the formation of atherosclerotic plaque which may lead to development of hypertension[8].

Methods

This case control study was carried out in the Department of Biochemistry of BSMMU, Shahbag, Dhaka from March 2013 to March 2014. 50 clinically diagnosed hypertensive patients were selected as cases & 50 apparently age & sex matched healthy normotensive adults were selected as control. 5 ml of fasting blood sample was collected from the study subjects. Serum was isolated and serum total cholesterol& LDLc level were measured. Data was analyzed by SPSS and descriptive statistics were presented as frequencies and percentages.

Results

The mean age of the case and control group were 44.72 ± 8.96 years and 42.30 ± 9.50 years respectively (Table I). The mean age of the case group was higher than the control group but the difference was not statistically significant (P =0.193). Both the groups were matched for age & sex.

Table I: Distribution of study subjects according to age & sex

	Group		p value
	Case (n=50)	Control (n=50)	
Age (years) (Mean ± SD)	44.72 ± 8.96	42.30 ± 9.50	0.193 ns
Sex			
Male	25 (50.0)	25 (50.0)	
Female	25 (50.0)	25 (50.0)	

t test was done to measure the level of significance. Figure within parentheses indicates in percentage. ns = non significant, n= number of study subjects. Biochemical parameters of the study population were measured and analysed (Table II). Mean TC was230.02 ± 29.16 mg/dl in case group and 157.46 ± 18.30mg/dl in control group. Mean LDLc was 139.86 ± 12.36 mg/dl in case group &107.84 ± 16.43 mg/dl in control group.Regarding biochemical parameter there was statistical significant difference (p< 0.001).

Table II: Comparison of serum TC & LDLc between cases & controls:

Biochemical Parameters	Case (n=50) (Mean ± SD)	Control (n=50) (Mean ± SD)	p-value
TC (mg/dl)	230.02 ± 29.16	157.46 ± 18.30	<0.001
LDLc (mg/dl)	139.86 ± 12.36	107.84 ± 16.43	<0.001

t test was done to measure the level of significance.

The figure 1 showing, there was a positive correlation between serum TC and Systolic blood pressure & the correlation was statistically significant (r = +0.464,p= 0.001) by Pearson correlation test.

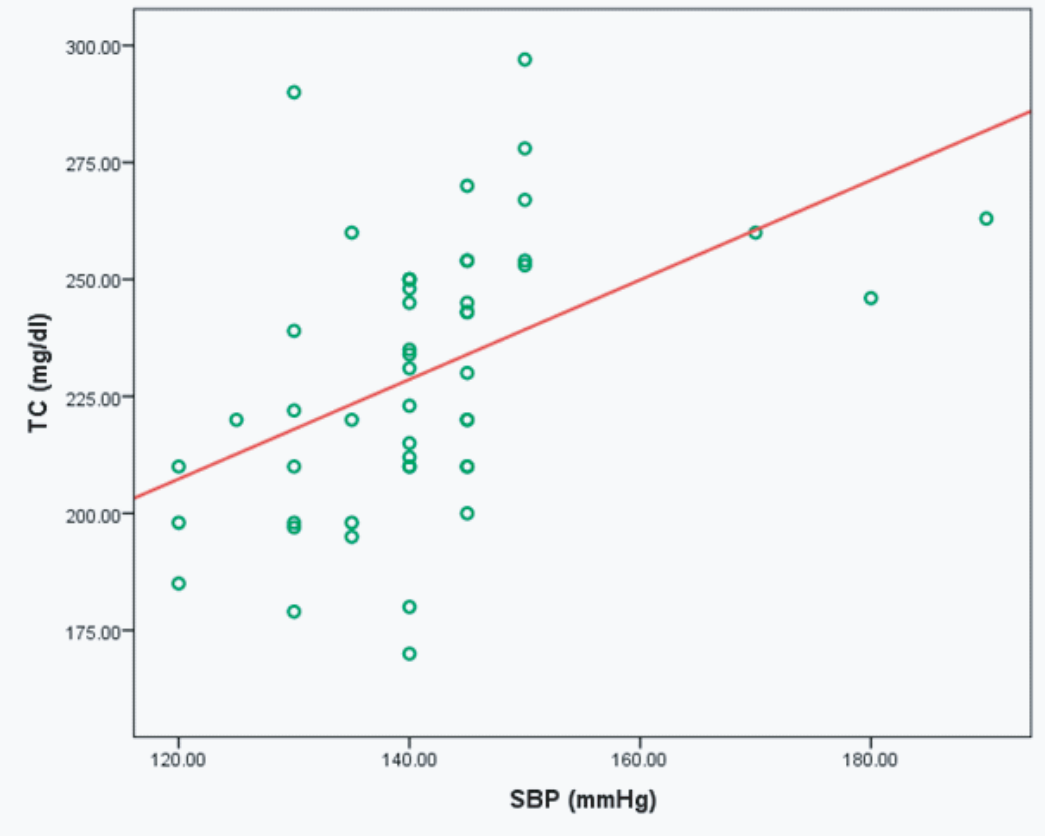

Figure 1: Correlation between Serum total cholesterol and Systolic BP in case group.

The figure 2 showing, there was a positive correlation between serum TC and diastolic blood pressure& the correlation wasstatistically significant (r = + 0.375, p = 0.007) by Pearson correlation test.

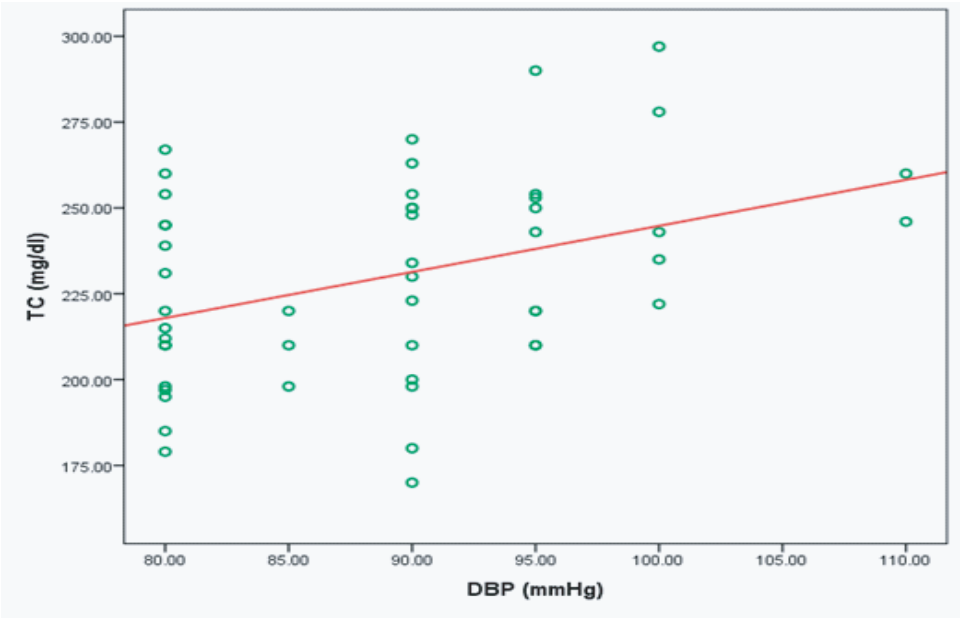

Figure 2: Correlation between Serum total cholesterol & Diastolic BP in case group

The figure 3 showing, there was a positive correlation between serum LDLc and Systolic blood pressure &the correlation was statistically significant (r = +0.535, p< 0.001) by Pearson correlation test.

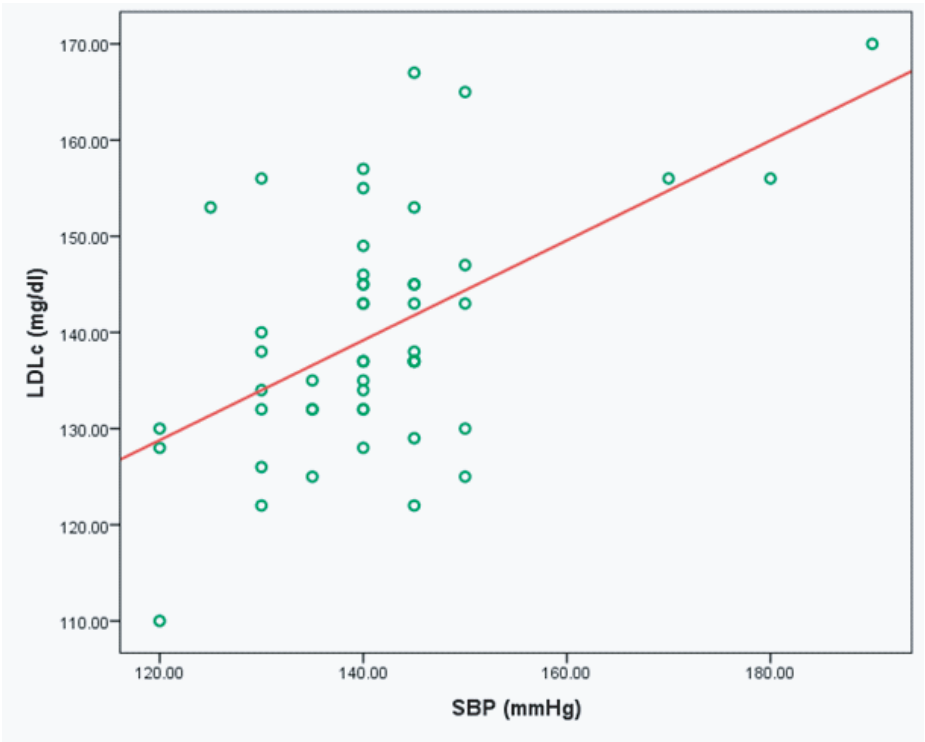

Figure 3: Correlation between Serum LDLc &Systolic BP and in case group. The figure 4 showing, there was a positive correlation between serum LDLc and diastolic blood pressure& the correlation wass statistically significant (r = + 0.419, p = 0.002) by Pearson correlation test.

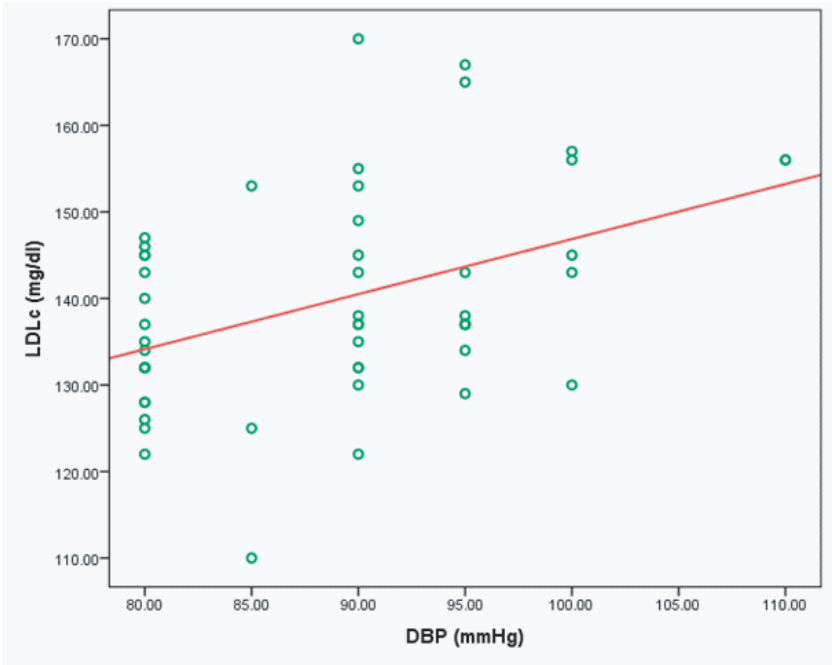

Figure 4: Correlation between Serum LDLc & Diastolic BP and in case group.

Discussion

This case control, analytical study was conducted to evaluate the relationship between serum total cholesterol& low density lipoprotein cholesterol with hypertension. A total of 100 subjects were included in the study based on predefined enrollment criteria. They were grouped into cases (hypertensive) and controls (normotensive) on the basis of presence or absence of hypertension. In this study male and female subjects were matched for both age & sex. Present study showed that the mean age of the case and control group were 44.72 ± 8.96 years and 42.30 ± 9.50 years respectively ranging from 25-60 years. Present study showed that mean serum total cholesterol& low density lipoprotein cholesterol were significantly higher in hypertensive subjects than controls ($p < 0.001$). This study is also in agreement with other studies 9,10,11,12,13,14,15.

Present study also showed significant positive correlation between serum TC with Systolic blood pressure ($P = 0.001$).This findings is supported by the other study[16] .This study also showed a significant positive correlation between serum TC with Diastolic blood pressure ($p = 0.002$). Present study also showed significant positive correlation between serum LDLc with Systolic blood pressure & diastolic blood pressure ($P < 0.05$).

Conclusion

From this study it can be concluded that increased level of serum total cholesterol& low density lipoprotein cholesterol are associated with hypertension. Serum total cholesterol& low density lipoprotein cholesterol are found to be positively correlated with Systolic & Diastolic blood pressure.

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Original Article

Morphometric Study of Distal End of Fully Ossified Dry Humayun Radius

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Abstract

Objectives: *This present study was carried out to construct a morphometric data regarding distal end of human radius with an attempt to grow interest among the researchers for future study.*

Methods: *Samples were selected through purposive sampling for this cross sectional descriptive study which was carried out in the Department of Anatomy, Mymensingh Medical College during the period of January 2016 to December 2016. Any damaged, incompletely ossified and fractured bones were excluded to contrive a standard measurement. Data were tabulated and statistically analyzed using Microsoft excel and SPSS software.*

Results: *The mean transverse width of lower end of right and left radius was 2.75 ±0.27 cm and 2.69 ±0.38 cm. The mean oblique width of lower end of right and left radius was 3.03 ±0.27 cm and 2.96 ±0.35 cm.The mean value of length of styloid process of right and left radius were 1.05±0.16 cm and 1.07±0.16 cm. Besides, the mean value of angle of radial inclination of right radius was 13.460±2.640 and the mean value of left radius was 19.070±4.290. Also the mean value of palmar tilt of right and left radius was 7.020 ±2.240 and 7.120 ±2.440.*

Conclusion: *The results of present study would be an important tool in the field of anatomy and also useful for orthopedic, forensic medicine, anthropology, archeology, sports science and ergonomics department.*

Key words: *Morphometry, Transverse width of distal radius, Oblique width of distal radius,Radial inclination, Palmar tilt.*

Introduction

Morphometrics (from Greek "morphé", meaning 'shape' or 'form' and "metria" meaning 'measurements') or morphometry refers to the quantitative analysis of form, a concept that encompasses size and shape[1]. Morphometric study of radius will be done with the primary aim to increase knowledge about the different parameters of radius which will helpful in surgical purposes. Distal end fracture constitutes 8-15% of all

upper limb fractures. If radial fracture is not corrected by internal fixation then it can be done by radial prosthesis2. For this issue, normal values of distal radial morphometry are important. For example, the quality of reduction evaluates mainly by angle of radial inclination. In Bangladesh prosthetic based treatment is still based on western parameters. This study will help to determine distal radius morphometry of Bangladeshi population. Thus the study helps to reduce the dependency on foreign standards.

Materials and Methods

This study was carried out in the Department of Anatomy, Mymensingh Medical College (MMC), Mymensingh from January 2016 to December 2016. The study was cross sectional descriptive type. The samples were selected through purposive sampling. A total number of 190 fully ossified dry human radius were selected. Transverse width of radius was measured as the maximum width of distal radius along perpendicular to the long axis of the radius, at the level of medial edge of radius. Medial edge was marked by a dot & lateral edge was by another dot. Then the transverse width was measured as the distance between two dots[3]. Oblique width was measured along its distal margin, at the level of styloid process of radius.

Medial edge of radius was marked by a dot and tip of styloid process by another dot. Then the distance was measured between these two dots[3]. Length of radial styloid was measured as a distance between the tip of styloid process and perpendicular to the long axis of radius at the level of medial edge of distal radius[3]. All of these parameters were measured by Vernier caliper. Then the angle of radial inclination was measured by goniometer as the

angle between a line joining the tip of styloid process & medial edge of distal edge and a line perpendicular to the long axis of radius[4]. Palmer tilt was measured as the angle between a line joining the centre of dorsal and volar margins of the articular surface of distal radius and perpendicular to the long axis of the radius[5].

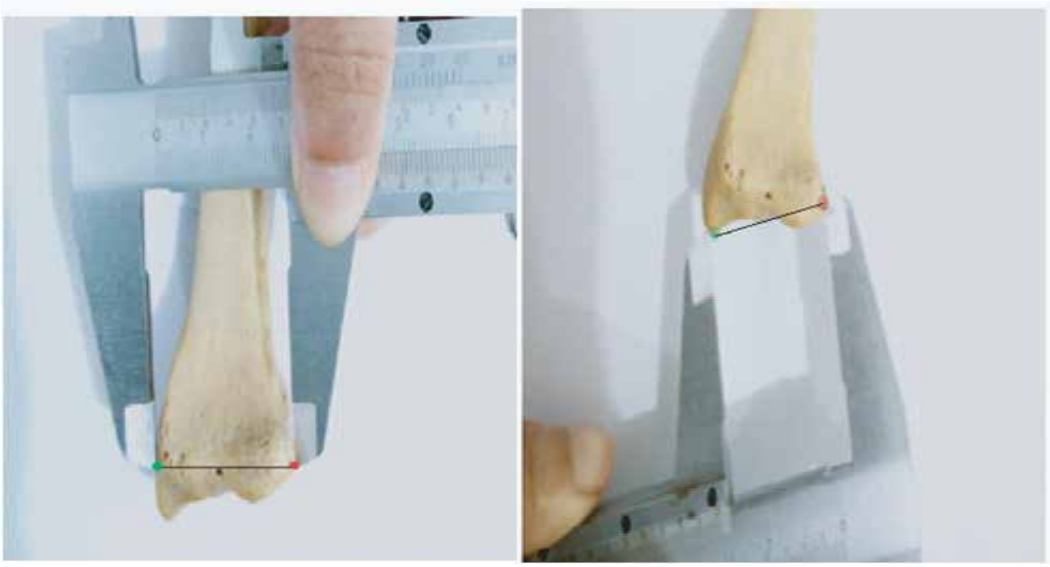

Figure 1: Procedure of measurement of (a) transverse width and (b) oblique width of distal radius by Vernier caliper.

Figure 2: Procedure of measurement of (c) length of styloid process by vernier caliper, (d) radial inclination and (e) palmar tilt by goniometer

Results

Present study showed (Table I) that the mean value of transverse width of lower end of right and left radius was 2.75 ±0.27 cm and 2.69 ±0.38 cm. Also the mean oblique width of lower end of right and left radius was 3.03 ±0.27 cm and 2.96 ±0.35 cm. Again the current study showed that the mean value of length of styloid process of right and left radius were 1.05±0.16cm and 1.07±0.16cm. Besides, the mean value of angle of radial inclination (Table II) of right radius was $13.46^0 \pm 2.64^0$ and the mean value of left radius was $19.07^0 \pm 4.29^0$. Also the mean value of palmar tilt of right and left radius was $7.02^0 \pm 2.24^0$ and $7.12^0 \pm 2.44^0$.

Table I : Linear measurements in both radius

Variable	Measurement(cm)		
	Range (cm)		Mean±SD (cm)
Transverse diameter of lower end	Right	1.91 -3.25	2.75 ±0.27
	Left	1.21 -3.57	2.69 ±0.38
Oblique diameter of lower end	Right	2.17 -3.74	3.03 ±0.27
	Left	1.45 -3.64	2.96 ±0.35
Length of styloid process	Right	0.61 -1.55	1.05 ±0.16
	left	0.77 -1.53	1.07 ±0.16

The transverse width of lower end of 98 radius of right side (more than 90%) was measured from 2.25 cm to 3.25 cm. In case of 92 radius of left side, 75% of the samples were measured from 2.25 cm to 3.25 cm. (Fig 3)

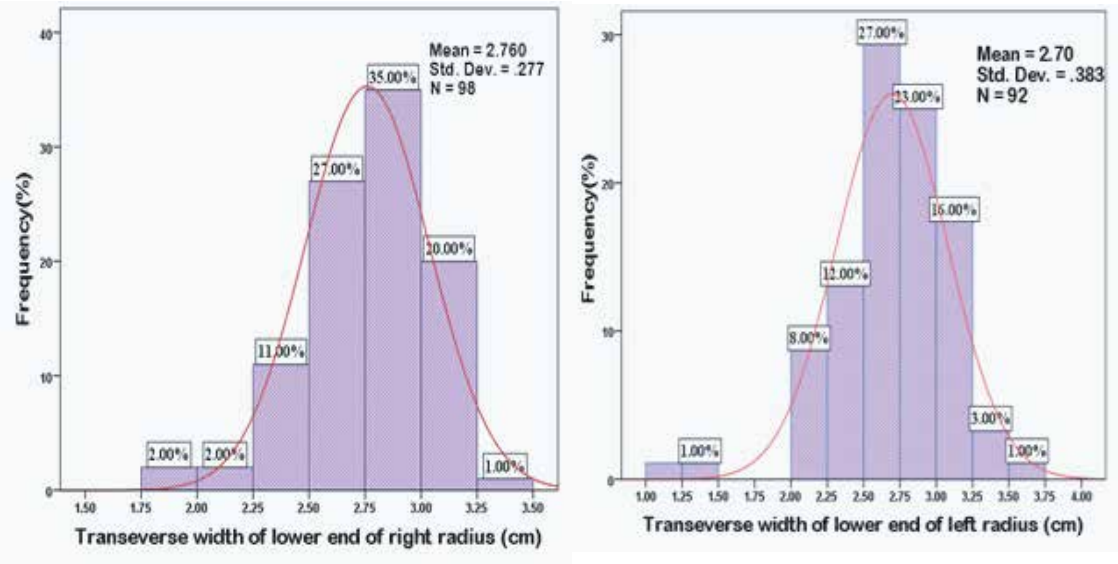

Figure 3: The frequency distribution of transverse width of lower end of right and left radius.

More than 80% of the samples, the oblique width of lower end of 98 right radius were measured from 2.50 cm to 3.50 cm. In case of 92 radius of left side, 89% of the samples were measured from 2.50 cm to 3.50 cm. (Fig 4)

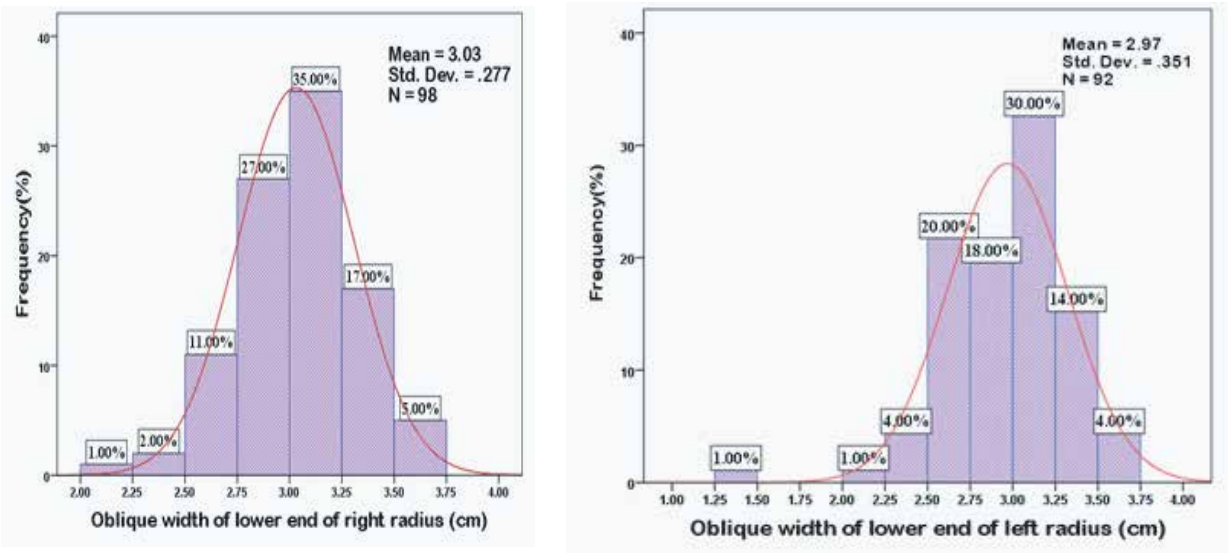

Figure. 4: The frequency distribution of oblique width of lower end of right and left radius.

Table II: Angular measure ments in both radius

Variable	Measurement (In degree)		
	Range		Mean±SD
Radial inclination	Right	10^0-25^0	$13.46^0 \pm 2.64^0$
	left	10^0-27^0	$19.07^0 \pm 4.29^0$
Palmer tilt	Right	4^0-19^0	$7.02^0 \pm 2.24^0$
	left	3.25^0-19^0	$7.12^0 \pm 2.44^0$

More than 90% of the samples from 98 right radius were measured from 9^0 to 18^0. In case of 92 radius of left side, 80% of the samples were measured from 12^0 to 27^0. (Fig 5)

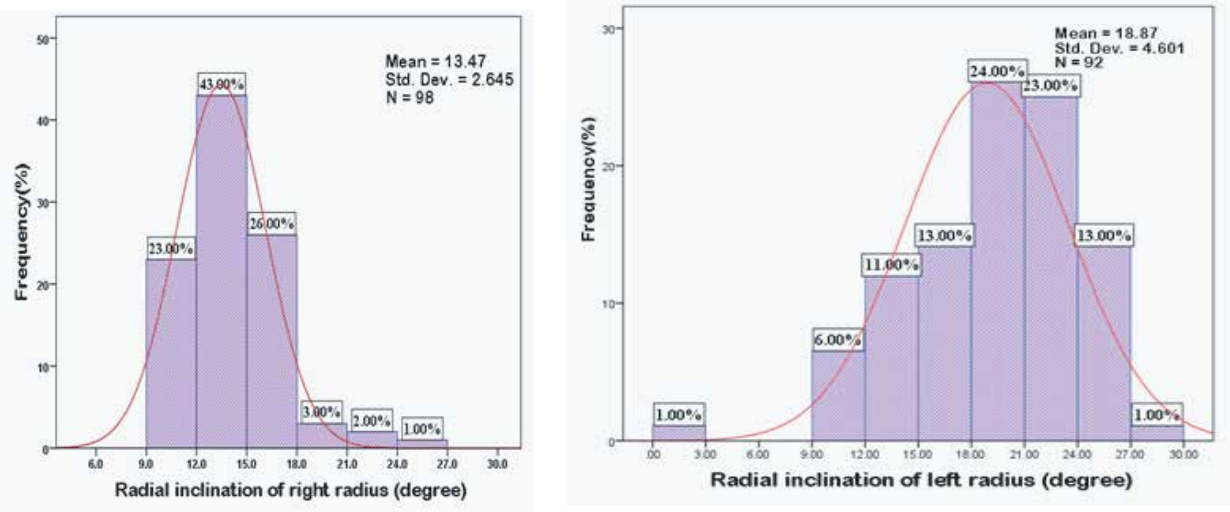

Figure 5: The frequency distribution of radial inclination of distal end of right and left radius.

Transverse width of lower end showedhighly significant positive correlation with length of styloid process in right (r=0.246 and p= 0.000) and left (r=0.383, p=0.000) radius.Oblique width of lower end showedhighly significant positive correlation with length of styloid process in right (r=0.215 and p=0.000) and left (r=0.392, p=0.000).Radial inclination of distal end showed significant positive correlation with the length of styloid process in right (r=0.110 and p= 0.000) and left (r=0.349, p=0.01) side.

Table III: Correlation and regression between length of styloid process of radius and other variables

Variable		Correlation with length of styloid process (cm)			
		Constant	B	r	P- value
Transverse width of lower end	Right	2.32	0.407	0.246 HS	.000 *
	left	1.71	0.918	0.383 HS	.000 *
Oblique width of lower end	Right	2.65	0.356	0.215 HS	.000 *
	left	2.04	0.860	0.392 HS	.000 *
Angle of radial inclination	Right	11.62	1.745	0.110 HS	.000 *
	left	8.09	10.042	0.349 S	.01 *

*= Correlation is significant at 0.01 level (2- tailed), S = Significant, HS = Highly significant, NS = Non significant, B = Regression co-efficient, r = Pearson's correlation

Discussion

In present study, for right radius, the mean transverse width of lower end of right radius was 2.75(±0.27) cm. But mean value of transverse width of lower end of left radius was 2.69(±0.38) cm. Gupta et al.[6]found the mean (±SD) transverse width of right and left radius as 26.4 (±0.22) mm and 25.5(±0.27) mm respectively. Prithish kumar et al. [7]performed a study on 132 intact adult Indian radius and found the mean (±SD) transverse width of lower end of right and left radius 26.3(±2.4) mm and 26.7(±2.2) mm respectively. Both study revealed lower values than present study. In the present study, the mean oblique width of lower end of right radius was 3.03(±0.27) cm and left radius was 2.96(±0.35) cm. Gupta et al. [6]found the mean (±SD) oblique width of lower end of right and left radius 2.83(±0.21) cm 2.78(±0.23) cm respectively. Prithishkumar et al. [7]performed a study and found the mean (±SD) oblique width of lower end 26.7(±2.3) mm for right radius and for left radius 27.2(±2.2) mm. Both study revealed lower value than present study. From the present study it was evident that the mean value of length of styloid process of right radius was 1.05(±0.16) cm and left radius was 1.07(±0.16) cm. Captier et al. [8]found the mean (±SD) length of styloid process 12.8(±0.33) mm without mentioning the side. But the value was higher than present study. Prithishkumar et al. [7]determined the mean (±SD) length of left and right styloid process as 11.0(±1.4) mm and 10.8(±1.5) mm respectively which were more or less similar to present study. Gupta et al. [6]conducted a study and described the mean (±SD) length of styloid process 1(±0.13) cm for right radius and 0.97(±0.14) cm for left radius which was slightly lower than the present study. In the present study the mean value of angle of radial inclination was 13.460(±2.640) for right radius and 19.070 (±4.290) for left radius. Gupta et al. [6] found the mean (±SD) value of radial inclination of left and right radius 25.60 and 24.50 respectively[6]. Prithishkumar et al. [7]performed a study and described the mean radial inclination of left and right radius as 21.80(±2.50) and 22.10(±2.90) respectively. Both the findings were higher than present study. Hadi and Wijiono[9]described the mean (±SD) radial inclination as 23.990(± 3.70)7. Schuind et al.[10]measured the mean (±SD) radial inclination of male and female as 24.10(±2.50) and 23.60(±2.70) respectively. Both study showed higher value than present study. But they did not mention the side of radius. According to the present study, for right radius, the mean value of palmer tilt was 7.020(±2.240) and for left radius was 7.120(±2.440). Prithishkumar et al. [7]published a study and found the mean (±SD) value of palmer tilt of left and right radius 8.20(±2.90) and 9.10(±20) respectively which was higher than present study. Hadi and Wijiono[9]found the mean (±SD) palmer tilt 13.760(± 4.360). On the other hand Zanetti et al. [11]conducted a study and described the mean (±SD) palmer tilt of distal radius as 12.70(± 2.60). Both study showed higher value than present study. But both of

them performed the study without mentioning the side of radius. In the present study the length of styloid process shows positive significant correlation with transverse width of lower end, oblique width of lower end and angle of radial inclination. Prithishkumar et al. [7] found similar result.

Conclusion

The present study showed the length of styloid process has positive significant correlation with transverse and oblique width of lower end and angle of radial inclination. The measurements were done on 190 radius to construct baseline data for establishment of anatomical standards of different morphometric measurements of radius.

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Original Article

Study on Early Marriage and its influencing factors among rural married women of aged 15-45 years in Bangladesh

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Abstract

Background: *Early marriage or child marriage is defined as the marriage or union between two people in which one or both parties are younger than 18 years of age. In many low- and middle-income countries, particularly in poorer rural areas, girls are often committed to an arranged marriage without their knowledge or consent. Such an arrangement can occur as early as infancy. Nonetheless, Child marriage is a wide-ranging problem in Bangladesh. Bangladesh has the fourth-highest rate of child marriage before age 18 in the world. Child marriage has been illegal in Bangladesh since 1929. Usually poverty in the families pushes them towards the decision to have girls married early[1].*

Methods: *The study was conducted among a total of 115 rural married Bangladeshi women aged 15-45 years of Chandragram village in December 2017. Required information was collected with the help of structured questionnaires through face to face interviews.*

Result: *Majority 87.8% respondents were married in between 10-18 years of age and 73.9% had their husband's age at marriage in between 21-30 years of age. Maximum 75.7% mentioned relief of burden as the major advantage and 39.1% mentioned hampering education as the major disadvantage of early marriage. Mostly 50.4% cited lack of education as overall cause and 36.5% stated social protection as their own early marriage cause.*

Conclusion: *The study revealed 82.6% of the respondents had positive perception regarding the role of family and 55.7% had positive perception regarding the role of media in case of early marriage in rural Bangladesh*

Key words: *Early marriage, child marriage, influencing factors*

Introduction

Child marriage, which is defined as marriage under the age of 18, is a reality for millions of women globally, especially in the developing world, and is a health and human rights issue of grave concern. It persists particularly among the poor and rural inhabitants of developing countries. It is projected that 142 million child marriages will take place in 2011–2020, and 151 million in 2021–2030 (UNFPA, 2012) [2]. One in seven girls in the developing world is married-off before the age of 15 (ICRW, 2007). The highest rates are in sub-Saharan Africa, South Asia, parts of Latin America and the Caribbean (ICRW, 2006).

Nearly half of the 331 million girls in developing countries are expected to marry by their 20th birthday. At this rate, every day more than 25,000 girls will be child brides in the next decade [3]. Countries with the lowest gross domestic product (GDP) tend to have the highest rate of child marriage (ICRW, 2006). Poverty leads to a higher prevalence of child marriage because poor families consider that they have fewer resources and incentives to invest as alternative options for girls . Child marriage remains pervasive in South Asia, where more than half of total 'child marriage' occurs . In spite of well-meaning laws, the high incidence of child marriage in

the countries of southern Asia currently remains one of the greatest human rights challenges for the development of the regions. A dangerous combination of entrenched poverty and customs, deeply embedded in patriarchal societies, continue to fuel the harmful practice of early marriage, particularly of girls. Economic constraints, 'customary law', culture and tradition often trump national policies and legislation and prevent existing education programmes from effectively retaining girls in school. Consequently, the practice of child marriage continues to thrive in the region, although the minimum legal age at first marriage for girls is an official agendum [3].

Marriage at a very young age has adverse health impacts on both young women and their offspring. This includes increased risk of sexually transmitted diseases (STDs), cervical cancer, malaria, maternal and child death during labour and obstetric fistulas . The adverse health consequences of early marriage for young women also include unintended pregnancy, preterm delivery, delivery of low birth weight babies, fetal mortality and violence within marriage . Girls of age 15–19 years are twice as likely to die of pregnancy-related complications. Women who marry early will on average have a longer period of exposure to the risk of pregnancy, which often leads to a higher risk of induced abortion and higher fertility due to lack of contraceptive usage. Child marriage also directly impacts on girls' education, psychological well-being, human rights and economic survival [3].

In Bangladesh the factors driving child marriage are poverty, natural disasters, and lack of access to education, social pressure, harassment, and dowry. Child marriage is an adjustment mechanism for poor families. The major causes of child marriages are as follows: Poverty is a major underpinning factor encouraging early marriage. Young girls are often considered as an economic burden by their families and their marriage to an older man and into another family is often a family survival strategy in order to obtain financial security.

- Parents who are unable to feed their children, or pay for their education costs, may seek a husband for their daughters simply so that the girls can depend;

-Poor girls lack access to education because their families cannot afford fees for exams, uniforms, stationery, and other associated costs even when education is "free";

-Social pressures and traditions, including the widespread practice of paying dowry, and lower dowries for younger girls, make child marriage accepted and expected in some communities.

-The practice of dowry requiring a bride's family to pay significant sums to the groom

– encourages the marriage of the youngest adolescent girls because younger brides typically require smaller dowries. Dowry demands can continue after the wedding and sometimes result in violence against the bride when families are unable to pay.

-Fear of Sexual Harassment of young daughters and failure by police to stem this harassment is another cause. Early marriage is seen as a way to "protect" a girl's sexuality in an unsafe environment[2].

UNICEF report on child marriage, November 2014 says 29% girls get married before the age 15 years and 65% girls before the age of 18 years in Bangladesh. It is among the countries in the world most affected by natural disasters and climate change; many families are pushed by disasters into deepening poverty, which increases the risk that their daughters towards early marriage. Families described feeling under pressure to arrange marriages quickly for their young daughters in the wake of a disaster. This was particularly common among families who faced losing their home and land through the gradual destruction caused by river erosion[4].

Costs associated with attending school, especially at the secondary level, remains out of reach for many children, and for girls in Bangladesh the consequence can often be child marriage[2].

Violence against girls and lack of physical safety of girls, especially in rural areas are commonly the subject to sexual harassment and physical assault on the way to school and even in the classroom. Because of these problems, parents are hesitant to send their daughters long distances to school over safety concerns. Parents find having an adolescent

unmarried daughter at home equally worrying because she continues to be a potential target for sexual crimes. Moreover, keeping a girl that has attained puberty at home increases the risk of self-initiated courtship or marriage. There is strong social stigma attached to pre-marital sex and rape, marrying the daughter off at the earliest opportunity is seen by the parents as the only way to ensure her physical safety and maintain family honour and respect[2].

Material & Method

The study was conducted among a total of 115 rural married Bangladeshi women aged 15-45 years of Chandrgram village in December 2017. Required information was collected with the help of structured questionnaires through face to face interviews. The study was cross sectional study and the sampling technique followed was non probability sampling.

Results

The descriptive type of cross sectional study reveals that regarding own age at marriage among the 115 respondents majority 101(87.8%) were married at between 10-18 years of age and remaining 6(5.2%) were married at less than 9 years of age, 8 (7.0%) were married at between 19-27 years of age accordingly. [Table: I]

Table I: Distribution of the respondents according to the own age during marriage (in years)

Own age during marriage	Number of the respondents	Percentage
<9	6	5.2
10-18	101	87.8
19-27	8	7.0
>27	0	0.0

Regarding husband's age at marriage majority 85(73.9%) were married at between 21-30 years of age, 15 (13%) were married at between 11-20 years of age 14(12.2%) were married at more than 30 years of age and remaining only 1(0.9%) were married at less than 10 years of age accordingly. **[Table: II]**

Table II: Distribution of the respondents according to the age of husband during marriage (in years)

Age of husband during marriage	Number of the respondents	Percentage
<10	1	0.9
11-20	15	13.0
21-30	85	73.9
>30	14	12.2

Among all the 115 respondents only 37(32%) said they know about the advantages of early marriage majority 28(75.7%) mentioned Relief burden, 8(21.6%) mentioned Security and remaining 1(2.7%) mentioned society accordingly. **[Table: III]**

Table III: Distribution of the respondents according to the advantages of early marriage

Advantages of early marriage	Number of the respondents	Percentage
Relief burden	28	75.7
Security	8	21.6
Society	1	2.7

Among the 115 respondents knowledge about the cause of early marriage, majority 58(50.4%) mentioned lack of education, 18(15.7%) mentioned lack of dependency, 14(12.2%) mentioned lack of awareness regarding health consequence, 6(5.2%) mentioned lack of alternatives, 2(1.7%) mentioned lack of political commitment, 1(0.9%) mentioned lack of access to mass media, 8(7.0%) mentioned lack of solvency and also 8(7.0%) said lack of awareness against law accordingly. **[Table: IV]**

Table IV: Distribution of the respondents according to the knowledge about the cause of early marriage

Cause of early marriage	Number of the respondents	Percentage
lack of education	58	50.4
lack of alternatives	6	5.2
lack of political commitment	2	1.7
lack of dependency	18	15.7
lack of solvency	8	7.0
lack of law and enforcement	0	0.0
lack of access to mass media	1	0.9
lack of awareness against law	8	7.0
lack of awareness regarding health consequence	14	12.2

Among the 115 respondents, majority 64(55.7%) said they know about the disadvantages of early marriage and majority 25(39.1%) mentioned Hampers education, 11 (17.2%) mentioned Difficulty in child birth, 6(9.4%) mentioned early pregnancy and 17(26.6%) mentioned all of the factors accordingly**. [Table: V]**

Table V: Distribution of the respondents according to the disadvantages of early marriage

Disadvantages of early marriage	Number of the respondents	Percentage
Hampers education	25	39.1
Early pregnancy	6	9.4
Difficulty in child birth	11	17.2
Increase divorce	5	7.8
Above all	17	26.6

Discussion

The descriptive type of cross sectional study reveals that regarding own age at marriage among the 115 respondents majority 101(87.8%) were married at between 10-18 years of age that is at adolescent age. According to UNICEF REPORT 2019 JUNE, many factors interact to place a child at risk of marriage, including poverty, the perception that marriage will provide 'protection', family honor, social norms, customary or religious laws that condone the practice, an inadequate legislative framework and the state of a country's civil registration system. While the practice is more common among girls than boys, it is a violation of rights regardless of sex. The current study justifies most of the influencing factors as stated like as lack of education, lack of dependency, lack of awareness regarding health consequence, lack of alternatives, lack of political commitment, lack of access to mass media, lack of solvency and also lack of awareness against law.According to UNFPA REPORT 2018 FEB, poverty is one of the main driving factors behind child marriage, the phenomenon is most widespread in low- and middle-income countries, where 26.7 per cent of young women were child brides. Rates vary by country and region. West and Central Africa have the highest rate of child marriage, with four in 10 girls married before age 18. South Asia is home to the largest total number of child brides.

Conclusion

The Bangladesh Government is concerned that pregnant adolescent girls, particularly in rural areas, would be ostracized by their communities if they could not marry. Allowing marriage in "special cases", such as pregnancy, is their proposed solution. But marriage does not protect girls. Research consistently shows that child marriage goes hand in hand with dropping out of school, losing out on job opportunities, and experiencing domestic violence. Instead, we must work with families and communities to ensure that girls are supported to stay in school, have access to the information they need to take control of their own bodies, and thrive[5].Providing safe and non-exploitative means of livelihood outside the home may help to reduce the high rate of early marriage. Education and professional training that build the capacity of girls and young women to generate income can enable them to postpone marriage. When education is not a feasible option, income-generation programs can empower women and girls with the skills and tools to reduce their dependency on family members and gain some autonomy[1].

This study revealed 82.6% of the respondents had positive perception regarding the role of family and 55.7% had positive perception regarding the role of media in case of early marriage in rural Bangladesh.

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Original Article

Photo-Anthropometric Study of orbital index of Fully Ossified Dry Human Orbital Cavities

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Abstract

Background: *Orbital morphometry is important to provide useful baseline data for ophthalmological, maxillary surgeries and reconstructive cosmetic surgeries of face. Safe and effective orbital surgery requires an extensive knowledge of the anatomy of the bony orbit and the morphometric relationship that exist within it.*

Materials & Methods: *Cross sectional analytical type of study was conducted in the Department of Anatomy, Dhaka Medical College, Dhaka from July 2014 to June 2015. The study was performed on 200 (Two hundred) fully ossified dry orbital cavities of 100 human skull.*

Results: *The mean height of right and left orbital cavity were 33.36±1.88 mm and 33.21 ± 1.91 mm. And the mean width of right and left orbital cavity were 41.90 ± 1.98 mm and 41.79 ± 1.96 mm respectively. The mean (±SD) height and width of right and left orbital cavity was not statistically significant (P>0.1).The mean orbital index of right and left orbital cavity were 79.63 ± 2.94 mm and 79.44±3.07 mm respectively. The range of the orbital index were 73.16-91.31mm in right and 72.84-89.98 mm in left. So there is also Statistically no significant difference (P > 0.05) was observed between right and left orbital cavities.*

Conclusion: *There were no significant difference of height, width and orbital index between right and left orbital cavities. But it determines the shape of the face and varies with race and regions within the same race.*

Key words: *photo-anthropometry, orbital height, orbital width, orbital index, fully ossified*

Introduction

The anthropometry studies can be divided into three categories: (1) Manual anthropometry, (2) two-dimensional (2D) photography and (3) three-dimensional (3D) photography[1].Each one has some advantages and disadvantages. The direct anthropometry is done by the caliper and tape measure[2,3].The examiner should possess adequate skill. During the measurement some errors may occur[4].Now-a-days, most of the anthropometry studies are carried out by imaging and computer software analysis[3,5] .The limitation of anthropometric devices and the advances in technology drove the researchers to use digital methods. As getting the digital technology many anatomists chose to study on photographic method.The orbital index determines the shape of the face and varies with race and regions within the same race. The knowledge of this index is important in various aspects such as in interpretation of fossil records, skull classification in forensic medicine and in exploring the trends in evolutionary and ethnic differences. Various natural and accidental

circumstances like wars, road and train accidents and deliberate mutilation, disfigurement of the body may necessitate the use of anthropometry to identify the sex of a person. The documented ranges of this index in different nationalistic groups will assist in skull identification[6]. The orbits were thus classified into either microseme, mesoseme or megaseme based on the orbital index which is important to determine the race.

Racial differences in orbital measurements were observed by the several authors[7]. A comprehensive knowledge of orbital anatomy is very important to understand the various disorders of this region and its surgical management. An understanding of orbital disease demands a clear concept of normal orbital anatomy. Safe and effective orbital surgery requires an extensive knowledge of the anatomy of the bony orbit and the morphometric relationship that exist within it.

Materials and Methods

It was a Cross-sectional, analytical type of study. The study was performed on 200 (Two hundred) fully ossified dry orbital cavities of 100 human skull in the Department of Anatomy, Dhaka Medical College, Dhaka from July 2014 to June 2015. Variation of orbital height, breadth and orbital index of both orbital cavity at different landmarks were recorded in millimeter by photographic methods (Adobe photoshop version 10). Paired students't' test was done for statistical analysis of the result.Procedure of photographic method: The human dry skull was placed on a wooden flat table at the same level of digital camera. The camera was fixed to a stand and the distance of the camera from the skull was fixed at 120 cm, with a fixed focus, zoom and illumination. The photograph of the orbital cavities were taken by the digital camera (Sony cyber shot 16.1 mega pixels).

The photograph was uploaded in to the computer.The photographic measurements of the orbits was done by using a computer program Adobe Photoshop version 10.

Procedure of physical method: Measurements by physical methods was carried out on 10 dry human skull out of 100 to ascertain the conversion factor. Orbital height, width were measured by digital slides caliper and the readings was noted in millimeter.

Procedure of conversion of photographic values into actual size These individual values of each photograph was converted into actual size by multiplying with the conversion factor.

Calculation of conversion factor (CF) –

The conversion factor is a ratio, calculated by dividing a physically measured value of a variable, with a photographically measured value of the same variable of each orbital cavities to convert photographically measured values to actual measurements.

Formula for calculating conversion factor –

$$CF = \frac{\text{Orbital height or width measured by physical method}}{\text{Orbital height or width measured by photographic method}}$$

Orbital Index - was calculated and recorded with the formula.

Height of orbit / width of orbit x 100 [8].

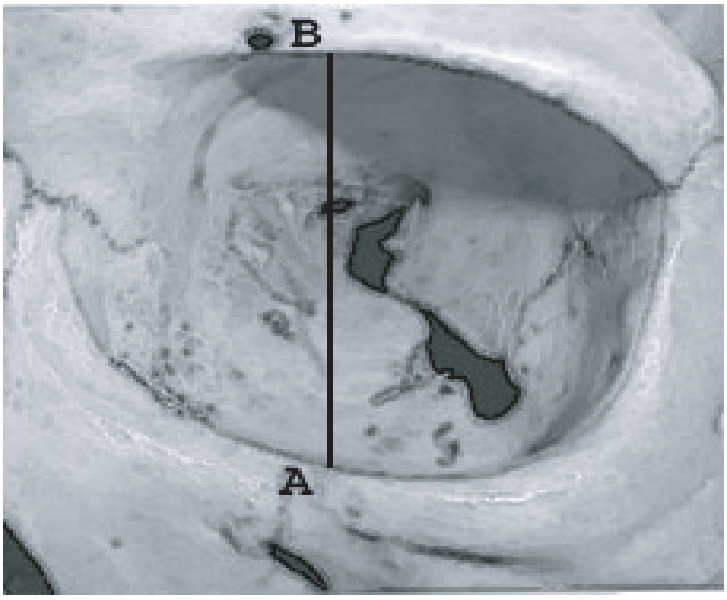

Figure 1: Photograph showing height of left orbital cavity. A (red dot) – Point in the infraorbital rim just above the infraorbital foramen (IF). B (blue dot) - Point in the supraorbital rim just vertical to the point A. AB- Left orbital height.

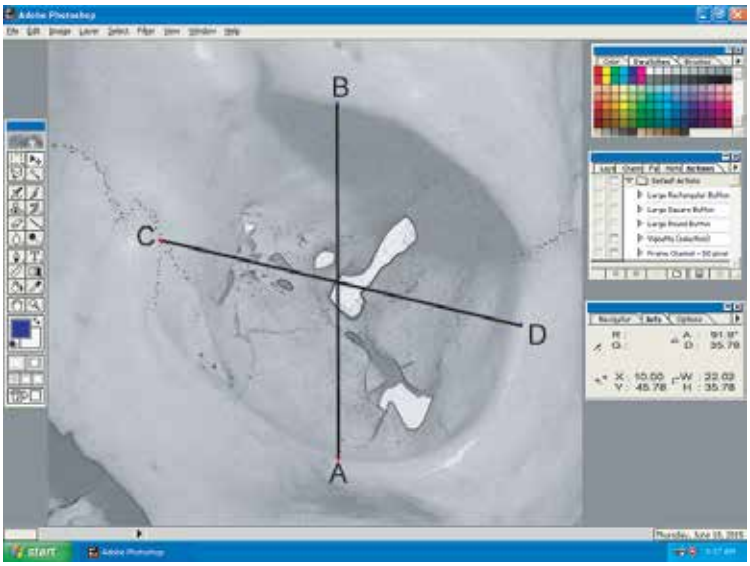

Figure 2: Photograph showing width of left orbital cavity. C (red dot) – Mid point of anterior lacrimal crest (ALC). D (blue dot) - Ectochion. CD – Left orbital width.

Results

Comparison between height and width of right and left orbital cavities: Table 1 shows that the mean height of right and left orbital cavity were 33.36±1.88 mm and 33.21 ± 1.91 mm respectively. The orbital height ranged from 29.40 mm to 37.84 mm on the right and 29.30 mm to 37.39 mm on the left orbital cavity. Difference between mean height of right and left orbital cavity was not statistically significant (P= 0.065).The mean width of right and left orbital cavity were 41.90 ± 1.98 mm and 41.79 ± 1.96 mm respectively. The orbital width ranged from 38.50 to 46.22 mm on the right and 38.28 to 46.15 mm on the left orbital cavity. No statistically significant difference between mean width of right and left orbital cavities (P = 0.077) was found.

Table 1: Comparison between height and width of right and left orbital cavity

Side	Orbital height in mm Mean±SD	Orbital width in mm Mean±SD
Right (n=100)	33.36±1.88 (29.40-37.84)	41.90±1.98 (38.50-46.22)
Left (n=100)	33.21±1.91 (29.30-37.39)	41.79±1.96 (38.28-46.15)
P value	0.065^{ns}	0.077^{ns}

Figures in parentheses indicate range. Comparison between right and left side done by paired Student's t' test, ns = not significant.

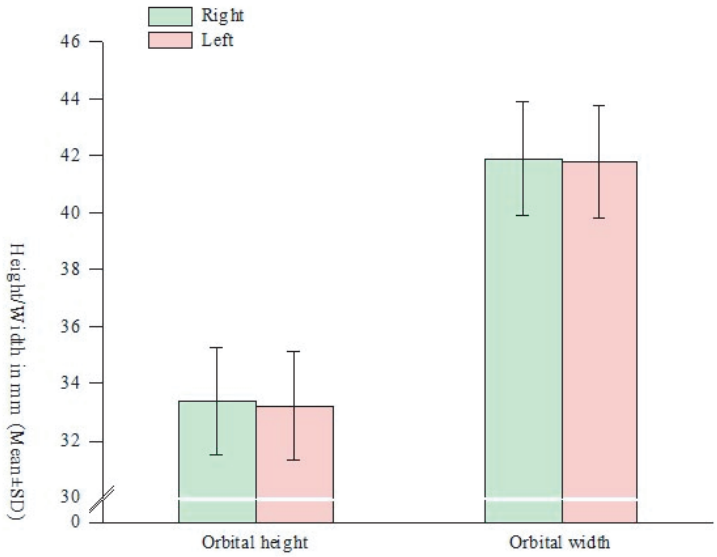

Figure 3: Height and width of right and left orbital cavity

Comparison between orbital index of right and left orbital cavities:

Table 2 shows that the mean orbital index of right and left orbital cavity were 79.63 ± 2.94 mm and 79.44±3.07 mm respectively. The range of the orbital index were 73.16-91.31mm in right and 72.84-89.98 mm in left. Statistically no significant difference (P > 0.05) was observed between right and left orbital cavities.

Table 2: Comparison between orbital index of right and left orbital cavity

Side	Index in % Mean±SD (mm)
Right (n=100)	79.63±2.94 (73.16-91.31)
Left (n=100)	79.44±3.07 (72.84-89.98)
P value	0.106[ns]

Figures in parentheses indicate range. Comparison between right and left side done by paired Student's 't' test, ns = not significant

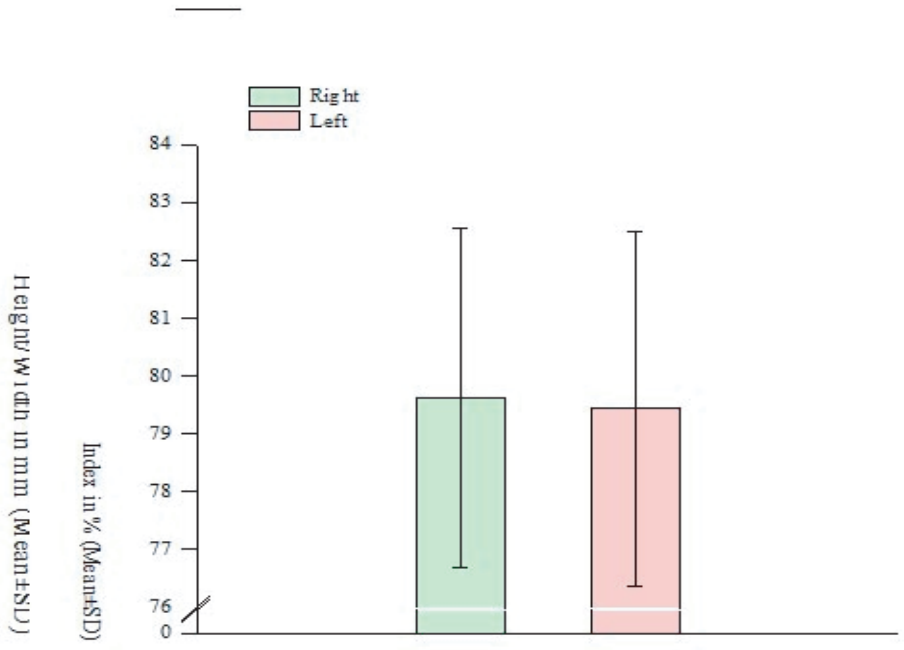

Figure 4: Comparison between orbital index of right and left orbital cavity

Discussion

The present work was undertaken to study various morphometric variables of both orbital cavities of one hundred fully ossified dry human skull. All the skulls were collected from the Anatomy Department of Dhaka medical college and other government and non-government medical colleges in Dhaka city. The main aim of the study is to find out that there is any difference exist between right and left orbital cavity. The study revealed some statistically important findings about morphometric variations of right and left orbital cavity.The study revealed some statistically important findings about morphometric variations of right and left orbital cavity. But there is no published work on anthropometric measurements of orbital cavity from photographic image in our country. So, present study could not be compared with any previous similar study of Bangladesh. Hence a comparative discussion on the results of different variables of the measurement of orbital cavity of both sides were done with that of different authors and Another study was carried out by Kumar A and Nagar M[6] on 136 orbits of 68 skulls. They collected the skulls from the Anatomy Department of Delhi University Medical colleges. They reported no significant differences between height and width of right and left orbital cavities. When compared with the present study, height and width of the orbital cavities of their study were significantly lower (P> 0.05) than the present study researchers of the other countries.

Observed results of morphological parameters showed some similarities as well as dissimilarities with the available publications. The findings of the present study are similar to the findings reported by Gosavi SN et al.[7], Huanmanop T et al.[8], Kumar A and Nagar M[6] and Battista, et al.[9]. These similarities may be due to the use of skull of the same subcontinent. Present study also shows some dissimilarity with the studies reported by Fathy A et al.[10], Ukoha et al [11] and Jeremiah M et al[12]. Because they collected skull bones from Egyptian, Nigerian and Kenyan population. Egyptian population are mixture of Causasoid and Negroid whereas Nigerian and Kenyan population are solely Negroid. The reason of dissimilarities might be due to racial variation and use of different measurement techniques.

In the present study, there were no significant differences between height and width of right and left orbital cavity. Gosavi SN et al[8] carried out a study on 128 orbits of 64 intact Indian dry skulls. They reported no significant differences between height and width of right and left orbital cavities. When compared with the present study, mean height and width of right orbital cavity and width of left orbital cavity reported by Gosavi S.N, et al[8] were significantly lower (P< 0.001) but no significant difference (P>0.05) was found in the height of the left orbital cavity. Another study was carried out by Kumar A and Nagar M [6] on 136 orbits of 68 skulls. They collected the skulls from the Anatomy Department of Delhi University Medical colleges. They reported no significant differences between height and width of right and left orbital cavities. When compared with the present study, height and width of the orbital cavities of their study were significantly lower (P> 0.05) than the present study.

Conclusion

The orbital index determines the shape of the face and varies with race and regions within the same race. The knowledge of this index is important in various aspects such as in interpretation of fossil records, skull classification in forensic medicine and in exploring the trends in evolutionary and ethnic differences. The present study shows no significant difference among height, width and orbital index of right and left orbital cavities.

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Original Article

Clinicopathological Spectrum of Colorectal Malignancy in Colonoscopic Biopsy

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Abstract

Background: *Colorectal cancer is the third most commonly diagnosed cancer in the world, but it is more common in developed countries. Around 60% of cases were diagnosed in the developed world. Though the incidence of colorectal carcinoma in our country is no less than the western world, there is no broad based study regarding this.*

Methods: *A Prospective type of cross sectional study was conducted in Dhaka Medical College Hospital from October 2013 to March 2014. Total 50 patients suffering from Colon Cancer were selected purposively according to inclusion and exclusion criterias, admitted into different surgical units of Dhaka Medical College Hospital.*

Ruselt: *In this study, highest incidence of colon cancer was among the people of 6th decade (32%) ,male (58%) smoker (40%) and most of the presenting features were abdominal pain (40%), blood mixed stool (56%), per rectal bleeding (30%), altered bowel habit (42%). After colonoscopy most tumours were sited in rectum (28%) and 4% were synchronous lesions. Macroscopic appearances were proliferative(44%), ulceroproliferative (36%) and annular 20%.After biopsy,96% cases were diagnosed as adenocarcinoma and most of them were graded moderately differentiated (58%).The study was aimed to identify site, histopathological types and gradings by colonoscopic biopsy of colorectal cancer patients.*

Key Words: *Colorectal Carcinoma, Colonoscopy, Histopathology, Grading.*

Introduction

Globally, nearly 800000 new colorectal cancer cases are believed to occur, which accounted for approximately 10% of all incident cancers, and mortality from colorectal cancer was estimated at nearly 450000[1]. It was the third most common cancer in male and femaleafter bronchogenic and prostate cancers in male and lung and breast cancers in females [2].According to WHO, colorectal cancer is the third most common cancer in men (746,000 cases, 10.0% of the total) and the second inwomen (614,000 cases, 9.2% of the total) worldwide. Almost 55% of the cases occur in more developed regions but with less mortality than in less developed regions. In South Asian countries the incidence of colorectal cancer in men is 56.66% and in women 48.33% [3]. The incidence increases with age. Carcinoma of the colon, particularly the right colon, is more common in women, and carcinoma of the rectum is more common in men [4]. Most tumours of the colonic carcinoma occur on the left side of the colon and usually of the stenosing variety. Carcinoma transverse colon may mistaken with carcinoma stomach due to position

of the tumour together with anaemia and lassitude [5,6].The right colon has a large caliber and a thin and distensible wall as a result carcinoma may attain large size before it is diagnosed. Patients often complaints of fatigue and weakness due to severe anemia. Unexplained microcytic hypochromic anemia should always raise the question of carcinoma of the colon. Patients may complain of vague right abdominal discomfort, which is often postprandial and may be mistakenly attributed to gallbladder or gastroduodenal disease. Alterations in bowel habits are not characteristic of carcinoma of the right colon, and obstruction is uncommon. Tumours of the left colon can gradually occlude the lumen, causing changes in bowel habits with alternating constipation and increased frequency of defecation. Partial or complete obstruction may be the initial picture. The stool may be streaked or mixed with bright red or dark blood, and mucus is often passed together with small blood clots [7]. The colonoscope is used to visualize the mucosa of the rectum, entire colon and terminal ileum to screen the intestinal abnormalities and to get biopsy for the definitive diagnosis. The gold standard investigation for suspected colorectal cancer is colonoscopy followed by histopathology. This has been shown to be more sensitive and specific than barium enema. Colonoscopy is the endoscopic examination of the large bowel and the distal part of the small bowel with a CCD camera or a fiber optic camera on a flexible tube passed through the anus. A colonoscopy allows an examination of the entire colon (1200-1500 mm in length). It has the advantage of not only picking up a primary cancer but also having the ability to detect synchronous polyps or even multiple carcinomas, which occur in 5% of cases. Screening of CRC with fecal occult blood(FOBT) and colonoscopy after age of 50 years decreases CRCincidence and mortality. Diagnosis of CRC was done by endoscopic biopsy. Adenocarcinoma were the most common histopathological diagnosis[8].The objective is to study the common presentation with location, histopathological type and grading of colorectal carcinoma by colonoscopy and biopsy.

Materials and Methods

The study was a Prospective type of cross-sectional study. Conducted at the Department of Surgery, Dhaka Medical College & Hospital, Dhaka over a period of 6 month from October 2013 to March 2014. A total 50 cases were enrolled in this study. Here we include all patients, either sex, above 13 years of age, with feature of colorectal malignancy that is diagnosed further by colonoscopy. We exclude those patient who presented with Recurrent colorectal carcinoma(recurrence of carcinoma at the site of anastomosis) and with features of acute bowel obstruction and underwent emergency laparotomy. For all cases, detailed history of patient on admission were taken by using a pre designed study proforma (Data sheet), duly filled in. All the cases were examined thoroughly. Per rectal examination was done in every cases. We have did colonoscopy and biopsy in all cases and recorded the finding.

Prior to the commencement of the study, the Ethical committee of BCPS has approved the research protocol. The aims and objective of the study along with procedure, methods, risk and benefits of the study was explained to the patient and informed verbal consent was taken from each patient.

Data were analyzed by SPSS, MS Excel software and descriptive statistics were presented as frequencies and percentages.

Result

In this study, highest incidence of colon cancer was among the people of 6th decade (32%), next highest was in the people of > 60 years (22.0%). About 29 (58%) cases of colon cancer were male and the rest of 21 (42%) cases were female. Male female ratio was 1.3:1.Regarding risk factors, 40% patients had smoker, 22% patients had habit of betel nut chewing, 10% patients alcoholic. Here about 56% patients presented with blood mixed with stool, 42% patients with altered bowel habit, 40% patients with abdominal pain, 30% patient with per rectal bleeding, 26% patients with abdominal lump (Table I). In this study, physical finding and clinical examination revealed, 26(52%) patients presented with anaemia and abdominal lump found in 13 cases where more in right colon(16%), all the rectal and 2 rectosigmoid cases had positive D/R/E and

proctoscopy findings (Table II).The colonoscopic findings have shown that 28% cases of carcinoma was in rectum followed by sigmoid colon 24%, ascending colon 10%, descending colon 10%, caecum 10% and transverse colon 8%. Synchronous lesion found 4% cases(Table III). Also macroscopic appearance of colon cancer on colonoscopy .44% were proliferative, 36% were ulceroproliferative, 20% were annular(Figure 1). And most of the histological type of colon cancer were adenocarcinoma (96%) and Lymphoma in 4% cases(Table IV) and 54% were moderately differentiated, 26% were well differentiated and 16% were poorly differentiated adenocarcinoma and 4% were low grade B cell lymphoma(Table V). Most of the patient was advised for surgery (92%) with intention for potentially curative resection (64%). A significant number of patient (28%) selected for palliative treatment.

Table **I:** Distribution of patients by clinical presentation (n - 50)

Clinical presentation	Frequency	Percentage (%)
Abdominal pain	20	40.0
Abdominal distension	05	10.0
Altered bowel habit	21	42.0
Abdominal lump	13	26.0
Per rectal bleeding	15	30.0
Blood mixed with stool	28	56.0
Mucous in stool	10	20.0
Tenesmus	14	28.0
Constipation	10	20.0
Diarrhoea	11	22.0
Weight loss	12	24.0

Table II: Distribution of patients by physical findings of colorectal carcinoma

Physical findings	Colorectal carcinoma				
	Right colon No. (%)	Left colon No. (%)	Recto sigmoid junction No. (%)	Rectum No. (%)	Total No. (%)
Anaemia	8(16.0%)	3(6.0%)	5(10.0%)	10(20.0%)	26(52.0%)
Jaundice	-	1(2.0%)		2(4.0%)	3(6.0%)
Edema	2(4.0%)	-	-	2(4.0%)	4(8.0%)
Ascites	2(4.0%)	-	-	3(6.0%)	4(8.0%)
Hepatomegaly	-	1(2.0%)	-	3(6.0%)	4(8.0%)
Abdominal mass	8(16.0%)	5(10.0%)	-	-	13(26.0%)
Positive D/R/E & proctoscopy	-	-	2(4.0%)	14(28.0%)	16(32.0%)
Positive P/V findings (female)	-	-	-	4(8.0%)	4(8.0%)

Table III: Distribution of patients by site of lesion (n=50)

Site of lesion	Frequency	Percentage (%)
Caecum	05	10.0
Ascending colon	08	16.0
Transverse colon	04	8.0
Descending colon	05	10.0
Sigmoid colon	12	24.0
Rectum	14	28.0
Synchronous	2	4.0
Total	50	100.0

Figure 1: Distribution of Macroscopic appearance of tumor on colonoscopy

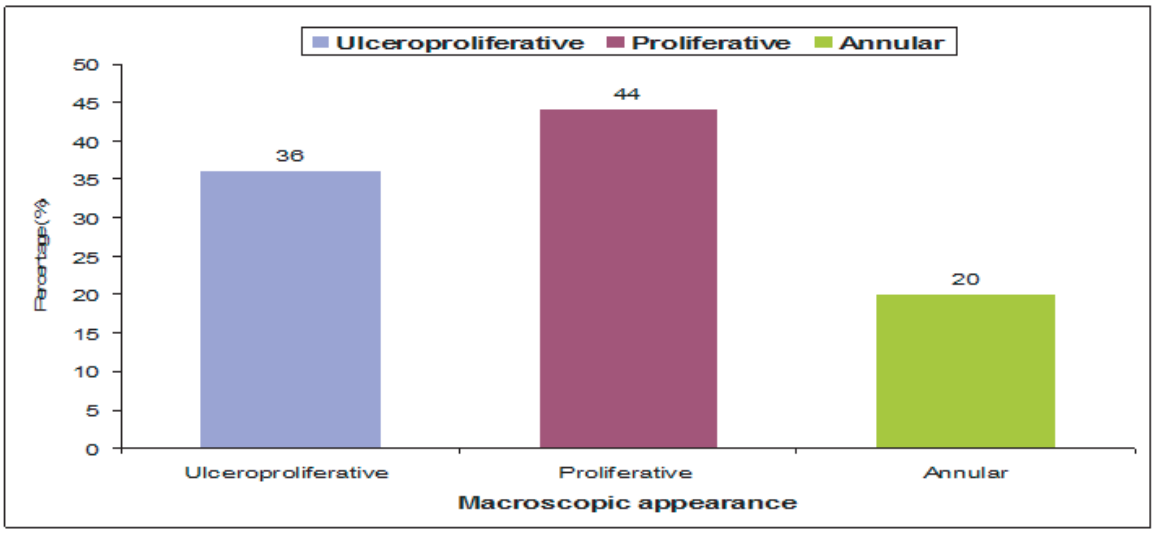

Table IV: Distribution of histological type of colon cancer (n-50)

Type	Frequency	Percentage (%)
Adenocarcinoma	48	96.0
Lymphoma	02	4.0
Total	Total	100.0

TableV: Distribution of histological grade of colon cancer (n-50)

Histological grade	Frequency	Percentage (%)
Well differentiated	13	26.0
Moderately differentiated	27	54.0
Poorly differentiated	08	16.0
Low grade B cell lymphoma	02	4.0
Total	50	100.0

Discussion

In this study the highest incidence of colon cancer was among the people of 5th decade (32%), next highest was in the people of > 60 years (22%). Incidence of colon carcinoma in the 40-60 years were significantly higher (50%).The western studies shows that, more than 90% of patients of colorectal cancer are over the age of 40 years. Compared with the West, colorectal cancer in South and South East Asia has been reported to occur with a greater frequency in young patients (usually < 40years old)[9].Regarding gender distribution of this study shows that 29 (58%) cases of colon cancer were male and the rest of 21 (42%) cases were female. Male female ratio being approximately 1.3:1. United States Cancer Statistics: 1999–2009shows that in 2009 (the most recent year numbers are available)—136,717 people in the United States were diagnosed with colorectal cancer, including 70,223 men and 66,494 women[10]. A study conducted by conducted by Jessica BO Connell et al showed that 51.4% were males and 48.6 were females, showing minimum difference in gender distribution[11].

In present study, among the most common risk factors, 40% patients were smoker, 22% patients had habit of betel nut chewing, 10% patients alcoholic. Another study by Hsing AW et al. showed risk of colon cancer was elevated among heavy cigarette smokers, heavy beer drinkers and white-collar workers or crafts workers within service and trade industries[12].Another comparative study were done to identify risk of CRC in smokers and nonsmokers by Limburg PJ et al. Where they found smokers have slightly increased risk for both incidental and fatal CRC [13].

In this study most of the patients 56% presented with blood mixed with stool, 42% patients with altered bowel habit, 40% patients with abdominal pain, 30% patient complaints of per rectal bleeding, 26% patients with abdominal lump, weight loss in 24% cases, 10% patient presented with abdominal distension. A study by Boyle Pshows that highest presenting symptoms was bleeding per rectum (68%), 62% patients presented with altered bowel habit, 55% were presented with weight loss, 35% patients presented with abdominal pain,10% patients presented with abdominal lump[14]. Another study by Mell SE shows that 77% patients presented with per rectal bleeding, followed by altered bowel habit 72%, weight loss 30%, abdominal pain 27%, anorexia 17% and abdominal mass 11%[15]. In present study 28% cases of carcinoma were found in rectum followed by sigmoid colon 24%, ascending colon 10%, descending colon 10%, caecum 10% and transverse colon 8%. Synchronous lesion found 4% cases. In a Nigerian data rectal carcinoma (56%) is more common than other part of large bowel [16]. Also in a study of Thailand (53.13%) rectal carcinoma is more common[17]. It proves that all studies in home and abroad, shows that highest preponderance of the lesion is in the rectosigmoid area. Regarding histopathological findings of colonoscopic biopsy shows that most of the histological type of colon cancer were adenocarcinoma (96%) and Lymphoma in 4% cases. In histopathological grading 58% cancerswere moderately differentiated, 26% were well differentiated and remaining 16% were poorly differentiated. Nakagae T et al. reported in a study of 105 patients of rectal tumour, 75% cases were found adenocarcinoma[18]. Burt RW shows that, adenocarcinoma comprise the vast majority 98% of colon cancers, Carcinoid 0.4%, Lymphoma 1.3% and Sarcoma in 0.3% cases[19].

Conclusion

Colonoscopy is incomplete without biopsy followed by histopathology and it is the gold standard for the diagnosis of colorectal lesions. This study showed an overall correlation between clinical and histopathological diagnosis in colorectal malignancies. In conclusion, colonoscopy is a better tool for the clinical diagnosis of colorectal carcinoma however, without histopathology, the diagnosis will be incomplete. Therefore, it is always advisable to correlate colonoscopic findings with histopathological findings for the final clinical diagnosis of colorectal carcinoma.

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Case Report

Unusual Foreign Body In The Vallecula Of Oropharynx

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Abstract

Foreign bodies in the upper aero-digestive tract poseses major challenges to the otolaryngologist in both diagnosis and management. Aspirated and ingested foreign bodies are often emergencies, leading to inadequate study and poorly prepared, improper attempts at removal. The most common foreign bodies in the valleculae of oropharynx are fish bone, bone chips , coin , pin ,wire , pilltes, bamboo sticks etc. we report a rare case of long metallic chain with hook in the Vallecula of oropharynx.

Key Words: *Vallecula, Foreign Body (FB)*

Introduction

Valleculaeare cup-shaped depressions behind the base of tongue. Each is bounded medially by the median glosso-epiglottic fold and laterally by lateralglosso-epiglottic fold[1].A foreign body (FB) is any object originating outside the body of an organism. Most references to foreign bodies involve propulsion through natural orifices into hollow organs. Foreign bodies can be inert or irritating[2].Long metallic chain with hook in the valleculae of oropharynx is an otolaryngeal emergency. It is the accidental with fun. Pain & bleeding are common presentation. Foreign bodies can be impacted in the pharynx and the oesophagus mainly because of their size, shape and anatomical narrow segments. Oesophagus is a passive and unadaptable organ and its peristalsis is not strong enough to prevent its retaining certain types of swallowed objects[3].

Case Report

A 6years old boy, student from moddopara,katiadia, kishoregonj came to JIMCH in emergency department on 12th August 2016 at 11.30 am. We examined the patient oral cavity by head light and tongue depressor, small amount of bloodstained in the oral cavity. X-ray soft tissue neck lateral view showed hook like radio-opaque shadow at the level of the epiglottis (Cervical 6). Patient is prepared for operation to remove the foreign body under general anesthesia.Surgery was performed on 12 August 2016 at 2pm.

Figure : FB in the Vallecula

Surgical procedure:

Under all aseptic precautions mouth is opened by Boyl Devis mouth gag then incision was given along the hook like end the FB which penetrated and impacted in the pharyngoepiglottic fold in the vallecula. Then removal of FB by manual traction. Adrenalin soaked cotton press over the incision for 10 minutes to stop the bleeding. Post-operative follow up was satisfactory.

Discussion

Ingestion of FB through the oral cavity then accidentally entered into the Vallecula of oropharynx & penetrated and impacted into the pharyngo epiglottic fold of vallecula by hook like end of FB. Operation was satisfactory. Long metallic chain with hook removal was successfully done and patient compliance was excellent. FB causes injury to the base of the tongue , posterior pillar of tonsil , posterior pharyngeal wall. Ingestion in the upper aero-digestive tract, either accidentally or deliberately, often constitute otolaryngologic emergencies. This type of the foreign body and the site of obstruction depend on various factors. Foreign body aspiration is commonly seen in children. The cases present with a wide spectrum of clinical problems. In general the treatment of a foreign body in the upper aero-digestive tract is a reasonably prompt endoscopic removal under conditions of maximum safety and minimum trauma[4].

An impacted foreign body should be removed as soon as the diagnosis is made, because: (i) the chance of spontaneous passage is less for an impacted object (ii) oedema due to local trauma tends to grip the object more firmly, making later manipulation increasingly difficult and (iii) perforation of the oesophagus is much more serious and dangerous complication [5].

Conclusion

This type of Foreign body in theVallecula is unusual and rare but due to presence of structures like laryngeal inlet Patients should be treated immediately and carefully to save the life and reduce the morbidity and mortality.

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(14) Magazine article

Roueche B. Annals of medicine; the Santa Claus culture. The New Yorker 1971 Sep 4:66 81.

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