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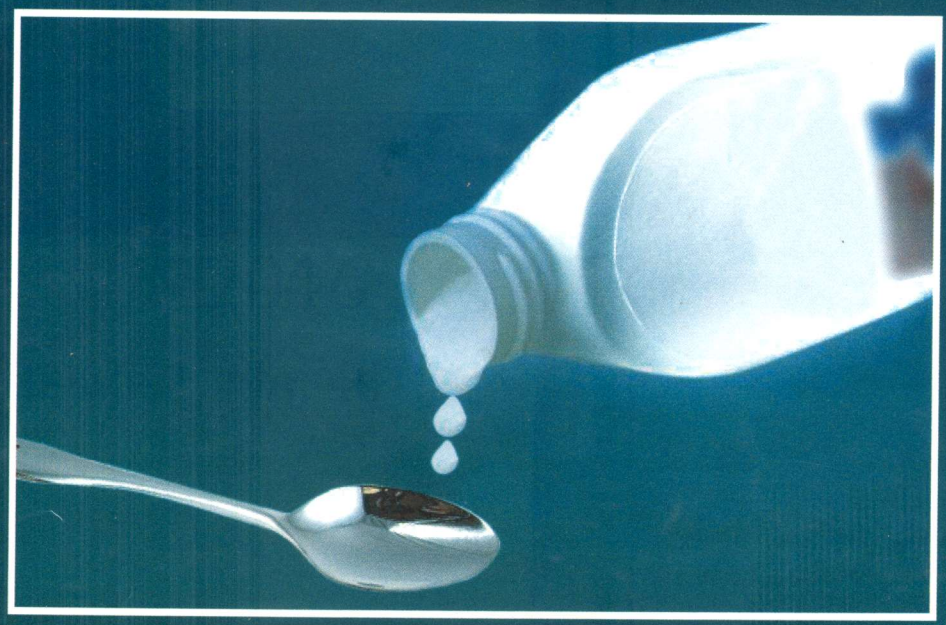

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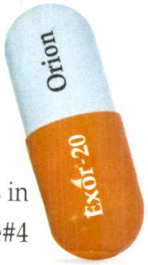

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The ORION Medical Journal

17th Years of glorious venture

The Advisory & Review Board

Editor's Choice

The Orion Medical Journal is celebrating seventeen years of trust and service to the medical community of Bangladesh. This humongous achievement is possible because of vigorous effort of our valued authors and boundless contribution of the respective members of the Advisory & Review Board. The Orion also depute its esteemed reader and well-wishers for granting such immense allegation. This medical journal is exclusively emphasizing the local research work and endorsing national diseases with native treatment protocol. In this issue we published one Original Articles, two Review Articles and two Case Reports with adequate references. Latest and breakthrough news of modern Medical Science are also assimilate.

Editorial special article (P-02) of this issue simply focus on history of some disease, that are commonly deal with, as very common disease in Bangladesh. The Editorial serves this interesting disease history and sources of its true origin.

The first original article (P-13) reviews the anterior cruciate ligament (ACL) injuries are very common in today's active population. Reconstructive surgery is the most effective mode of treatment in such cases. In this study on 19 cases, There are no significant difference between the outcome of ACL reconstruction by BPT Bone graft and Quadruple Hamstring graft, after 5 years follow up.

The first review article (P-15) discuss about the Cardiovascular risk of post menopausal women. For this study 60 women were selected, in which 30 were premenopausal and 30 postmenopausal. During study period a shot history was taken to know their health status. All quarries of the subjects were explained to their satisfaction. A short menstrual history was also taken to collect blood sample of premenopausal women during follicular phase (7-10days) of menstrual cycle. On the basis of the present study it can be concluded that the hormonal changes after menopause brings changes in the haemostatic, blood pressure and lipid profile towards atherogenicity and increases the risk of cardiovascular disease. The most potentially adverse changes have been found in lipid profile in postmenopausal women. Primary prevention and early detection can prevent the morality and morbidity of women.

The second review article (P-20) reviews Melioidosis-a concern among farmers. In Countries where occurs, people with compromised immune systems such as AIDS, cancer, those undergoing chemotherapy, etc. Untreated, melioidosis is fatal. When treated with antibiotics, severe forms of the illness have an overall mortality rate of approximately 40%.

The first case report (P-23) discuss about the Stone in the urethral Diverticulum of a menopausal Women. The diagnosis is made by the uretheral escape of plus or urine on pressure over the tumour, radiologically on a micturating cystogram, video cystometrogram, or urethroscopy. The symptoms of urethral diverticulum may mimic other disorders. Stone formation is rarely found is an effective treatment, however, recent technologic advancement including ultrasound and lithotripsy may change this widely accepted method of treatment.

The second case report (P-27) discuss about the effectiveness of colposcopy for prevention cervical cancer in Bangladesh. In Bangladesh, every year 17676 women are diagnosed with cervical cancer and 10364 die from the disease (Ferlay et al., 1998). Cervical cancer is a preventable disease as the different screening diagnostic and therapeutic procedures are effective. Cancer cervix is potentially preventable. VIA + ve, abnormal pap's smear, suspicious looking cervix of women are managed at colposcopy clinics of Bangabandhu Sheikh Mujib Medical University (BSMMU) and 14 Medical College Hospitals (MCHs). Colposcopy is an office procedure and very much effective in diagnosis and management of precancerous condition of cervix.

With Volume: 17, Issue: 1, No: 40, the Orion accomplishes the choice of thousand readers nationally and also in the international arena. Every effort has been made to make this issue interesting. We thank all our readers and reviewers for their continuous support. At the same time we expect your valuable opinion and suggestions to make "The Orion" medical journal ameliorated steadily.

May the Almighty bless in the spirit of good health.

DR. SINTHIA ALAM
Chief Editor
The ORION Medical Journal

The ORION Medical Journal

Some Diseases Etymologies And History

The ORION Medical Journal 2016 July;17-1(40): p2-4

Alam Sinthia, Hossain Nazir

Etymology from latin etymologia means "analysis of a word to find its true origin",classical etymologists, Christian and pagan, based their explanation on allegory and guesswork, lacking historical records as well as the scientific method to analyze them, and the discipline fell into disrepute that lasted a millennium.

As a modern branch of linguistic science treating of the origin and evolution of words,from 1640s. As "account of a particular history of a word"

Typhoid Fever: 1800,Literally "resembling typhus" from typhus + -oid, so called because it originally was thought to be variety of typus. (The Greek ' typhos' meaning smoky or hazy , describing the state of mind of those affected with typus). In 430 BC, a plague, which some belive to have been typhoid fever, killed one-third of the population of Athens, including their leader Pericles. Following this disaster, the balance of power shifted from Athens to Sparta,ending the Golden age of Pericles.that had marked Athenian dominance in the Greek ancient world.The ancient historian Thucydides also contracted the disease,but he survived to write about the plague.His writings are the primary source on this outbreak and modern academics and medical scientist consider epidemic typhus the most likely cause.In 2006,a study detected DNA sequence similar to those of the bacterium responsible for typhoid fever in dental pulp extracted from a burial pit dated to the time of the outbreak.Some historian belive that English colony of Jamestown,Virginia, died out from typhoid.During American civil war, 81,360 Union soldiers died of typhoid or dysentry, far more than died of battle wounds. The most notorious carrier of typhoid fever, but by no means the most destructive,was marry Millon, also known as typhoid Mary.She was the most widely known carrier of typhoid fever. In 1907, she was the first person in the United states to be identified as a carrier of the pathogen responsible for the disease,without experiencing symptom related to the disease. She was a cook in New York who is closely associated with 53 cases (hundread in US) 2 and three death. Public health authorities told Mary to give up working as a cook or have her gall bladder removed, as she had a chronic infection that kept her active as a carrier of the disease.Mary quit her job, but returned later under a false name. She was forcibly isolated for quarantine purposes twice in her life. Once 1907 and again in 1915. The second time she was not released and she died of pneumonia after 26 years in quarantine at the age of 69

Mary Mallon ("Typhoid Mary") in a hospital bed (foreground): She was forcibly quarantined as a carrier of typhoid fever in 1907 for three years and then again from 1915 until her death in 1938.

Brucellosis: Modern Latin , named for schottish physician Sir David Bruce, who discovered the bacteria that cause it.Under the name of " Malta fever", the disease now called brucellosis first came to the attention of British medical officer in 1850s in Malta (Mediterranean island) during

Crimean war. The Crimean war won a military conflict between October 1853- March 1856 in which Russia lost to an alliance of France, the United Kingdom the ottoman empire and Sardinia. So, it's also called Crimean fever.1897, Danish veterinarian Bernhard Bang isolated, B.abortus as the agent, and the additional name 'Bang's disease was assainged. In cattle, this disease, usually carried by B.abortus, is also known as "Contagious abortion" and infectious abortion.The popular name 'undulant fever' originate from the characteristics undulance (or"wave-like nature) of fever, which rises and falls over week in untreated patient. In 20th century,this name along with brucellosis (after Brucella, named

Introduction

The knee is the most frequently injured joint because of its anatomic structure, its exposure to external forces and the functional demands placed on it.1

The ligaments of the knee sustain injury mainly in contact sports like playing football, volleyball, long jump, etc. The commonest damaging force is a combined rotation and impact injury to the bent weight-bearing knee, though at times a direct trauma to a flexed knee is also responsible. Knee injuries are often severely disabling unless diagnosed promptly and treated efficiently, and as such, the joint that is used to carry and to propel, to comfort and to supplicate, merits care on every account. 2

Anterior cruciate ligament (ACL) is the main stabilizer of the knee for athletic pivotal activities. It is an intra-articular structure of knee joint. It has an average length between 31 mm 3 & 38 mm along it's anterior border.4 It is a 2 bundled ligament, consisting of a small anteromedial and a larger posterolateral bundle.5

The most common mechanism of anterior cruciate ligament injury is a twisting or deceleration that may be accompanied by hyperextension and/or internal rotation forces on the knee. Reconstructive surgery is generally considered the standard treatment for athletes, who want to return to sports that involve pivoting. In younger patients, reconstructive surgery is necessary to prevent further damage to the knee, and minimize degenerative changes. 6

Efforts to reconstruct anterior cruciate ligament have resulted in the development of several different techniques, involving the use of prosthetic ligaments, allografts and autografts composed of fascia lata, semitendinosus tendon, or patellar tendon .7

An aggressive post-operative rehabilitation program can diminish the problem of lack of full knee extension commonly associated with patellar tendon grafts. Therefore, if the surgeon is unable to control the post-operative physiotherapy program to ensure full extension, the hamstrings may be a better graft choice.

Errors in tunnel placement, tensioning, and fixation are more likely to result in a poor outcome than the choice of which graft to use. Unrecognized malalignment can be a reason for failure of ACL reconstructions. 6

Patients & Metthods

This comparative study was carried out at National Institute of Traumatology and Orthopaedic Rehabilitation (NITOR), Dhaka, Bangladesh, during the period from January 2006 to December 2012. The study populations was 19. Patients with age ranging from 18-35 years, with ACL injury leading to instability of knee for at least 3 months with failed response after conservative treatment were included in the study; Patients with uncontrolled diabetes mellitus, associated meniscus injury, a history of previous ACL reconstruction, reconstruction for posterior, posterolateral or lateral instability of the knee, etc. were excluded from the study.

Diagnosis was made by careful history taking, detailed clinical examination and appropriate radiological evaluation, like x-ray, MRI, etc. Prior diagnostic arthroscopy was done in some cases.

Patients were devided in to 2 groups; Group-I were treated by Bone Patellar Tendon (BPT) Bone graft and Group-II by Quadruple Hamstring graft.

The baseline variables to be studied were sex, age, affected knee (left or right) interval between the injury and reconstruction (months), type of previous procedure done (diagnostic arthroscopy) cause of reconstruction (chronic instability, torn ACL), Lachman Test (Grade-I, II and III), Pivot shift test (positive or negative), Insall-Salvati ratio, arthroscopic evaluation (intact menisci, tears of medial or lateral meniscus or both menisci), preoperative range of motion (extension and flexion in degree) and category of patients (high, moderate and low risk of giving-way on the basis of amount of risks entailed to perform certain activities like cutting, decelerations and jumping). Only one per operative variable included was size of the graft.
The follow-up evaluation was done on the variables like Lachman Test, Pivot shift test, Insall-Salvati ratio, postoperative range of motion, hospital stay (days), time taken to return to work (days), and final outcome (regaining motion; partial or full) was rated by the patient (patient satisfaction

– excellent, good, fair and poor).

The complications studied were, post operative pain (categorised as painless, intermittent pain, consistently painful during sports activities and pain during daily activities), swelling, infection, deep venous thrombosis, displacement of the screw,etc . A planned rehabilitation protocol was followed up throughout whole period of study. Data were processed and analysed by the use of Chi-square Test, Fisher's Exact Probability Test and Wilcoxon Signed Rank Test. For any analytical test, the level of significance was 0.05 and p-value < 0.05 was considered significant.

Operative technique

Under spinal anaesthesia,the patient was placed supine on the operating table, and a thigh tourniquet was applied. A lateral post was applied. A careful examination under anesthesia (Lachman test, pivot shift test,etc,) was performed. Then relevant anatomic landmarks including the sites of arthroscopic portals were delineated.

In case of the BPT Bone graft, 9 a midline incision extending longitudinally from the inferior pole of the patella to the medial aspect of the tibial tubercle carried sharply to the level of the peritenon was given. A no. 11 scalpel was employed to divide the central 10 mm of tendon longitudinally in line with its fibers. A 10-mm wide by 20- to 30-mm bone plug (depending on patient size) was measured and marked at the tibial tubercle, with a similar plug marked on the distal pole of the patella. An oscillating saw was utilized to create the medial and lateral borders of a trapezoidal bone block from the tibial tubercle & patella. The distal & proximal aspects of the bone blocks were also cut with the saw. The bone block was gently elevated using a straight, narrow osteotome. The bone plugs were fashioned to fit through 10-mm spacers. 2 no. 5 nonabsorbable sutures were passed through drill holes in the bone plugs to facilitate later graft passage. The graft was wrapped in moistened sponges until implantation.

In cases of the Hamstring graft,10 the gracilis and semitendinosus tendons were identified about 2 cm distal and 2 cm medial to the tibial tubercle. A 2 cm oblique incision over the anteromedial tibia was made, and dissection was carried through the subcutaneous tissue. The sartorial fascia was then incised over the interval in line with the tendons. A modified Krackow stitch, using no. 2 nonabsorbable suture, was placed in the end of the tendons. The closed tendon stripper was then used to harvest the tendons.

Then, standard arthroscopy portals were utilized for a thorough diagnostic evaluation of the knee.
The ACL remnant was cleared from the lateral intercondylar wall of the femur with a curette and shaver to allow clear

Fig 1 : Harvesting hamstring graft

Fig 2 : Appearance of graft after passage

visualization of the over-the-top position. The tibial tunnel entrance was placed on the metaphyseal flare just anterior to the superficial medial collateral ligament. If the femoral notch is pictured as the face of a clock, The preferred graft position for the right knee was 10 to 11 o'clock and for the left knee, the ideal position is between 1 to 2 o'clock.

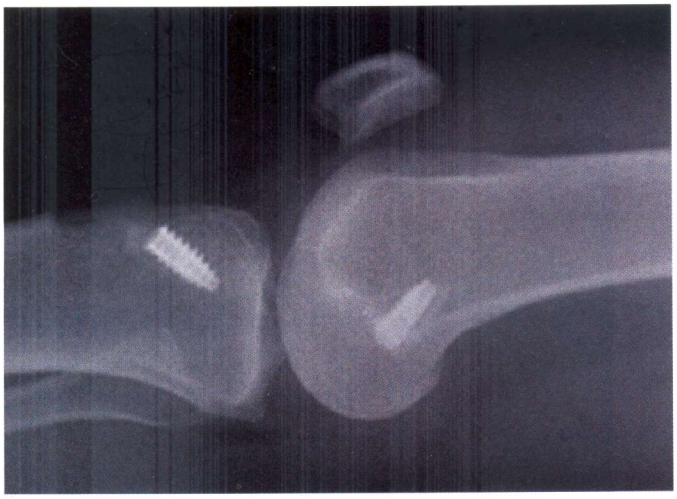

Fig 3 : Post-operative lateral x ray

The tibial guide was introduced through the anteromedial portal. After the tibial guidewire was passed, it was over-drilled with a 10-mm reamer to create the tibial tunnel. The femoral guide was then introduced into the knee through the tibial tunnel and positioned. The femoral guidewire was passed through the femur and out the anterolateral thigh.

The leading sutures from the graft's tibial bone plug were then placed through the eyelet of the guidewire that traversed the knee. The wire was pulled through the thigh, and the sutures were grasped as they exited the anterolateral thigh. Under direct arthroscopic visualization, the graft was delivered into the joint and positioned as desired. The interference screws were positioned carefully against the cancellous side of the bone plug to avoid injury to the tendinous portion of the graft.

Post operative care

Most of the patients were discharged on 2nd post-operative day, then onwards were advised for subsequent rehabilitation at the OPD. Physical therapy was begun within 4 or 5 days of surgery, and patients were seen 5 to 7 days post-op to review surgical findings and postoperative rehabilitation. The goal for the first 2 post-operative weeks was to minimize swelling, allow wound healing, and begin range of motion exercises. From 3 weeks, gradual knee bending exercise & knee extension against resistance started. After 3 months, light sports (cross-country, jogging, curling, or golf) were allowed, a full range of motion, no effusion, negative Lachman, and return to about 90% strength were gained. Contact sports were allowed after 6 months. 6

All 19 patients were followed up for at least 5 years; initially at 3 weeks interval for first 3 months, followed by at every 6 months. The outcome was evaluated by the Lysholm Knee Scoring System.8

Results

Among the 19 cases in this study, 10 were treated by BPT Bone graft and 9 by Quadruple Hamstring graft. All patients selected were males. The mean age of the patients was 26.31 (± 6.4) years, ranging from 18 to 35 years. Right knee was affected in 12 cases, and left knee in 7 cases, with a right left ratio of 12:7. The average interval between the injury & reconstruction was 14.5 weeks, ranging from 10-38 weeks. The pre-operative baseline findings of the patients were as follows

better result was observed in context of knee flexion and lower thigh atrophy in the Hamstring tendon group during the early follow ups.

Subjective evaluation (Influence of activity level, function of the knee, pain, swelling & giving way), 5 years after reconstruction revealed no significant difference between the two groups, except a few transient, slightly increased patello-femoral tenderness and donor site morbidity (kneeling pain and decreased sensation over the knee).

in the BPT Bone graft group.

Clinical evaluation (Lachman test, pivot shift test, medial joint opening, group rating for ligament examination, effusion, extension, flexion & thigh atrophy) 5 years after surgery showed no significant deference between the two groups, although slight

Baseline Finding	BPT Bone graft(%)	Quadruple Hamstring graft(%)
Previous procedure done		
-Diagnostic arthoscopy	20	10
-None	80	89
Lachman test		
-Grade II	70	66
-Grade III	30	34
Pivot shift test		
-Positive	60	56
-Negative	40	44
Meniscus injury	30	33
Full extension of knee (o)	100	100
Flexion of knee (o)		
130	30	44
135	70	56
Category of patient		
-High risk of giving way	10	00
-Moderate risk of giving way	90	10
Mean pre-operative Lysholm knee scoring scale	59.9	56.22

Clinical evaluation (Lachman test, pivot shift test, medial joint opening, group rating for ligament examination, effusion, extension, flexion & thigh atrophy) 5 years after surgery showed no significant deference between the two groups, although slight better result was observed in context of knee flexion and lower thigh atrophy in the Hamstring tendon group during the early follow ups.

Functional evaluation (According to the Lysholm knee scoring scale) 5 years after surgery showed no significant deference between the two groups. The results of the functional evaluation are as follows :

Parameters (points; total 100)	BPT Bone graft group n=10		Quadruple Hamstringgroup n=9		P value
	Points	Mean (±SD)	points	Mean(±SD)	
Limp (5)	44	4.4 (±0.96)	39	4.3 (±1.00)	0.88
Support (5)	50	05 (±0.00)	45	05 (±0.00)	----
Stair climbing (5)	84	8.4 (±2.04)	82	9.11 (±1.76)	0.43
Squatting (5)	38	3.8 (±1,13)	37	4.11 (±0.92)	0.52
Walking-instability (5)	295	29.5 (±1.58)	260	28.8 (±2.20)	0.49
Walking pain (5)	250	25.0 (±3.33)	235	26.1 (±2.20)	0.40
Walking swelling (5)	69	6.9 (±1.37)	63	7.0 (±1.93)	0.89
Atrophy of thigh (5)	29	2.9 (±1.19)	24	2.67 (±1.00)	0.65
Total	859		785		
Mean	85.9 (±3.45)		87.22 (±4.59)		

Table 2 : Outcome of functional evaluation
Data analysis was done by t-test

According to the Lysholm knee scoring system, the mean pre-operative score in the BPT Bone graft group was 59.9 (±7.07) and the Hamstring group was 56.22 (±6.01). after 5 years follow up,the mean post-operative score for the BPT Bone graft group was 85.9 (±3.45) and for the hamstring group was 87.22 (±4.59). So, in this comparative study, the p value was 0.62 (Analysis was done by t-test).

The post-operative complications in cases of both the two groups were as follows :

Complication	Group-I (BPT Bone graft)		Group-II (Quadruple Hamstring graft)		P value
	N	%	N	%	
Wound infection	00	00	00	00	-
Anterior knee pain (Patello-femoral tenderness)	04	40	01	11	0.30
Kneeling pain	04	40	01	11	0.30
Joint effusion	00	00	00	00	-
Joint swelling	03	30	02	22	0.89
Joint stiffness	02	20	01	11	0.92
Knee instability	00	00	00	00	-
Decrease skin sensitivity	05	50	01	11	0.34
Thigh wasting	03	30	02	22	0.89
Graft failure	00	00	00	00	-

Table 3 : Post operative complications
Data analysis done by Chi-square test (Fisher exact test)

Postoperative rating by the patient themselves in this study showed 40% in group-I and 55% in group-II were "excellent", 40% in group-I and 33% in group-II were "good", and remaining 20% in group-I and 11% in group-II were "fair".

Regarding the final outcome, no poor result was noticed in case of both the 2 groups. 2 (20%) patients in group-I and 3 (33%) in group-II were categorized as "Good to excellent". 5 (50%) in group-I and 4 (44%) in group-II were "Fair to Good". Remaining 3 (30%) in group-I and 2 (22%) in group-II were "Fair". The final outcome after 5 years follow up was as follows :

End result	Group-I (BPT Bone graft)		Group-II (Quadruple Hamstring graft)		P value
	Number	%	Number	%	
Excellent	00	00	00	00	---
Good to excellent	02	20	03	33	1.0
Fair to Good	05	50	04	44	1.0
Fair	03	30	02	22	1.0
Poor	00	00	00	00	---
Total	10	100	09	100	

Table 4 : Distribution of patients by final outcome
Data analysis done by Chi-squares test (Fisher exact test)

Score	Outcome
98-100	Excellent
93- 97	Good to excellent
82- 92	Fair to Good
66- 81	Fair
<66	Poor

Discussion

Anterior cruciate ligament is injured most commonly by a twisting or deceleration, accompanied by hyperextension and/or internal rotation forces on the knee. In younger patients, reconstructive surgery is necessary to prevent further damage to the knee, and minimize degenerative changes. 6

Among the 19 cases in this study, 10 were treated by BPT Bone graft and 9 by Quadruple Hamstring graft. The mean age of the patients was 26.31 (± 6.4) years, ranging from 18 to 35 years. In another study, the mean age of the patients was 27.2 years, ranging from 20-41 years, 11 which was all but similar to this study.

Right knee was affected in 12 cases, and left knee in 7 cases in this study, with a right left ratio of 12:7. All patients selected were males. There is no other study to elicit either any side or any sex predilection.

The timing of surgical treatment is controversial. Shelbourne showed that, reconstruction of acute injuries resulted in more stiffness and greater loss of range of motion. To avoid this, he suggested reconstruction to be delayed until a full range of motion is achieved. 12 Similarly, in this study, at 5 years follow up, no permanent stiffness or loss of range of motion was noticed, as the average interval between the injury & reconstruction was 14.5 weeks, ranging from 10-38 weeks.

In a study by Wagnar, the mean post-operative Lysholm score was 89.7 in the patellar tendon group and 94 in the hamstring tendon group, having no significant deference between the two groups.11 Similarly, in this study, after 5 years follow up, the mean post-operative score for the BPT Bone graft group was 85.9 (±3.45) and for the hamstring group was 87.22 (±4.59). So, in this comparative study, the p value was 0.62, denoting no significant deference between the outcome of the two groups.

In this study, post-operative complication showed no significant difference between the two groups except BPT bone graft group had slight increased transient patello-femoral tenderness and donor site morbidity, like kneeling pain and decreased sensation over the anterior knee. In a study, the Hamstring tendon group showed significantly less positive pivot-shift test & less thigh atrophy (p=.024) and patellofemoral crepitus (p=.003).11 In another comparative study by Maletis, the BPT bone grafting group showed difficulty in jumping (17%), transient sensory deficits (83%) and difficulty in kneeling (20%) while the the hamstring group had better extension strength (92%).13 Liden found troublesome patellofemoral pain in 26% cases.14 Corry noticed significantly less kneeling pain after reconstruction with the hamstring tendon autograft in comparison to the patellar tendon autograft.15

Postoperative rating by the patient themselves in this study showed 40% in group-I and 55% in group-II were "excellent", 40% in group-I and 33% in group-II were "good", and remaining 20% in group-I and 11% in group-II were "fair". In a study on 68 cases, 44 were rated excellent, 15 good, 6 fair and remaining 3 were rated poor.7

But the functional outcome defers from the patient's own rating, as there may be residual quadriceps deficit due to lack of optimum rehahibilitation. In a study on 31 patients with compete unilateral ACL injury, the extent of quadriceps deficits despite functional improvement, the difficulty in restoring quadriceps strength after bone-patellar tendon-bone reconstruction was highlighted. 16 Similarly, in this comparative study, despite the patients' satisfaction, no case was rated as ''excellent'' after 5 years follow up, rather 20% in group-I and 33% in group-II patients were categorized as "Good to Excellent", 50% in group-I and 44% in group-II were "Fair to Good", and 30% in group-I and 22% in group-II were "Fair".

Conclusion

Anterior cruciate ligament (ACL) injuries are very common in today's active population. Reconstructive surgery is the most effective mode of treatment in such cases. In this study on 19 cases, We found no significant difference between the outcome of ACL reconstruction by BPT Bone graft and Quadruple Hamstring graft, after 5 year follow up.

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Diagnosis can be done by micturating cystogram, video cystometrogram and urethroscopy. For accurate diagnosis, a double balloon positive pressure urethrography is a more sensitive test[6]. Other methods for diagnosis are transvaginal sonography and magnetic resonance imaging. Regarding treatment, diverticulectomy and/or martius flap, pubovaginal sling and urethral reconstruction procedure may be needed beside simple excision.

In the present case, we found stone in a postmenopausal lady of 60 years of age. Sultana and Begum also reported a case of stone in the urethral diverticulum of a 55 years old lady with a history of very painful swelling in the vagina with low grade fever and difficulty in micturition[10]. Another case report of a giant calculus in the female urethral diverticulum was reported by Martinez Masstre et al., where a 5x6 cm calculum was present in a patient with recurrent urinary tract infection[11]. Adenocarcinoma and nephrogenic adenoma in a urethral diverticulum was also reported[12].

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Conclusion

The symptoms of urethral diverticulum may mimic other disorders. Stone formation is rarely found and can be diagnosed by local palpation. Local excision is an effective treatment, however, recent technologic advancement including ultrasound and lithotripsy may change this widely accepted method of treatment.

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Effectiveness of Colposcopy for Prevention cervical cancer in Bangladesh

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Introduction

In Bangladesh, every year 17,676 women are diagnosed with cervical cancer and 10364 die from the disease (Ferlay et al., 2008). Hospital based data revealed that cervical cancer constitutes 22-29% of female cancer in Bangladesh (Akhter et al., 1998). Cervical cancer ranks the second commonest female cancer in Bangladesh, first commonest is breast cancer.

Preinvasive lesion of cervical cancer

Invasive squamous cell cervical cancers are preceded by a long phase of preinvasive disease, collectively referred to as cervical intraepithelial neoplasia (CIN). CIN may be categorized into grades 1,2 and 3 depending upon the proportion of the thickness of the epithelium showing mature and differentiated cells. More severe grades of CIN (2 and 3) reveal a greater proportion of the thickness of the epithelium composed of undifferentiated cells. Persistent infection with one or more of the oncogenic subtypes of human papilloma viruses (HPV) is necessary cause for cervical neoplasia. Most low-grade CIN regress within relatively short periods or do not progress to high-grade lesions. High-grade CIN carries a much higher probability of progressing to invasive cancer. Invasive cervical cancers are usually preceded. This is characterized microscopically as a spectrum of events progressing from cellular atypia to various grades of dysplasia or cervical intraepithelial neoplasia (CIN) before progressing to invasive carcinoma.

Screening procedure of cervical cancer

Cervical cancer is a preventable disease as the different screening diagnostic and therapeutic procedures are effective. The screening procedures are VIA (visual inspection of cervix with acetic acid), Pap's smear, colposcopy, HPV DNA test. Among them colposcopy is effective in screening as well as treatment of CIN such as cold coagulation, cryotherapy and LEEP (Loop electrosurgical excision procedure). The main goal of colposcopy is to detect the presence of high-grade CIN and invasive cancer.

Key words: Effectiveness of Colposcopy for Prevention cervical cancer

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Indication of colposcopy

A colposcope is a low-power, stereoscopic, binocular field microscope with a powerful light source used for magnified visual examination of the uterine cervix to help in the diagnosis of cervical neoplasia. The magnification is to the extent of 7.5-40 times.Indication for colposcopy is suspicious-tooking cervix.invasive carcinoma on cytology, CIN 2 or CIN 3 on cytology, persisting (for more than 12-18 months)low grade (CIN 1) abnormalities on cytology[1], CIN 1 on cytology, persisting unsatisfactory quality on cytology, infection with oncogenic human papillomaviruses, acetopositivity on visual inspection with acetic acid (VIA), acetopositivity on visual inspection with acetic acid using magnification (VIAM), positive on visual inspection with Lugol's iodine (VILLI). The most common indiction of referral of colposcopy is positive screening tests (e.g. , positive cytology, positive on visual inspection with acetic acid (VIA) etc.).

Acetic acids thought to cause swelling of the epithelial tissue, columnar and any abnormal squamous epithelial in particular. It causes a reversible coagulation or precipitation of the nuclear protein and cytokeratins. thus, the effect of acetic acid depends upon the amount of the nuclear protein and cytokeratin present in epithelium when acetic acid is applied to normal squamous epithelium, little coagulation occurs in the superficial cell layer, as this is sparsely nucleated. Though the deeper cells contain more nuclear protein, the acetic acid may not penetrate sufficiently to obliterate the color of the underlying stroma. Areas of CIN undergo maximal coagulation due to their higher content of nuclear protein and prevent light from passing through the epithelium. As a result, the subepithelial vessel is obliterated and less easy to see the epithelium appears white. This reaction is termed

acetowhitening, and produces a noticeable effect compared with the normal pinkish color of the surrounding normal squamous epithelium of the cervix, an effect that is commonly visible to the naked eye. Acetowhitening associated with CIN and invasive cancer quickly appears and persists for more than one minute. The acetic acid effect reverses much more slowly in high-grade CIN lesions and in early pre-clinical invasive cancer than in low-grade lesions, immature metaplasia and sub-clinical HPV changes. It may last for 2-4 minutes in the case of high-grade lesions and invasive cancer.

Colposcopic assessment of cervical intraepithelial neoplasia

The colposcopic diagnosis of cervical neoplasia depends on the recognition of four main features:

Intensity (color tone) of acetowhitening, margins and surface contour of acetowhite areas, vascular features and color changes after iodine application. The occurrence of abnormal features in a localized area in the transformation zone increases the probability of diagnosis of a neoplastic lesion. Biopsy should be directed whenever in doubt. The observation of well-demarcated, opaque, acetowhite area(s) in the transformation zone close to or abutting the squamocolumnar junction is the hallmark of colposcopic diagnosis of CIN. Low-grade CIN is often seen as thin, smooth acetowhite lesion with well-demarcated, but irregular, feathery or digitating or angular margins. High-grade CIN are associated with thick, dense, dull, opaque or grayish-white well-demarcated, regular margins, which sometimes may be raised and rolled out. They may be more extensive and complex lesions extending into the endocervical canal. The surface contour of the acetowhite areas associated with high-grade CIN lesions tend to less smooth, or irregular and nodular. Visualization of one or more borders within an acetowhite lesion or an acetowhite lesion with varying color intensity is associated with high-grade lesion.

Abnormal vascular features such as punctation and mosaics are significant only if these are seen confined to acetowhite areas. Vascular features such as fine punctation and/or fine mosaics in acetowhite areas, may be associated with low-grade CIN. Coarse punctuation and/or coarse mosaics in acetowhite areas tend to occur in high-grade lesion. CIN lesions do not contain glycogen and thus not stain with iodine and remain mustard or saffron yellow areas.

Fig.-1: Circumorificial, mild to dense acetowhite lesion with fine mosaic (arrow).

Fig.-2: A CIN 1 lesion with with a mustard yellow iodine negative area. Histology indicated CIN 1. Note the internal borders within the lesion (a). irregular margins

Management

The clinical management of women with CIN 1 lesions may take one of the following: (a) immediate treatment or (b) follow the woman and treat if the lesion is persistent or progressive after 18 to 24 months. All women with CIN 2 and CIN 3 lesions should be treated with cryotherapy or LEEP. Women diagnosed with invasive cancer should be promptly referred for treatment. It is generally preferable to have the diagnosis of cervical intraepithelial neoplasia (CIN) firmly established before a decision on management is taken

and any treatment offered. However, there may be exceptions to this rule. For example, in developing countries like Bangladesh, women may be offered treatment at their first colposcopy visit, based on colposcopy assessment to maximize treatment coverage (otherwise patients lost to follow-up would not receive treatment for lesions).

Loop electrosurgical excision procedure (LEEP) is a relatively simple procedure. A loop (2-3 cm) of very thin stainless steel wire is used for excision of the transformation zone. The key advantages of LEEP over cryotherapy is that it removes rather than destroying the affected epithelium, allowing histology examination of the excised tissue. A loop wider than the lesion(s) and the transformation zone to be removed should be used; otherwise, the lesion should be removed with multiple passes.

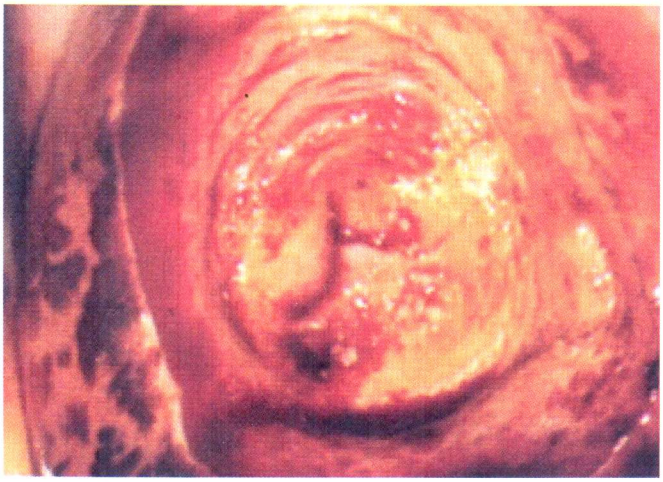

Fig.-3: Excision of an ectocervical lesion extending

Fig.-4: Apparence of cervix 1 year after LEEP in the endocervical canal by LEEP

Conclusion

Cancer cervix is potentially preventable. VIA + ve, abnormal pap's smear, suspicious looking cervix of women are managed at colposcopy clinics of Bangabandhu Sheikh Mujib Medical University (BSMMU) and 14 Medical College Hospitals (MCHs). Colposcopy is an office procedure and very much effective in diagnosis and management of precancerous condition of cervix. The project of "Establishment of national center for cervical and breast cancer screening and training at BSMMU" under ministry of health and family welfare is going on successfully. For local awareness creation spreading health education through television cable line advertisement is helpful for participation in screening program. When preinvasive cervical lesion are diagnosed and managed by Colposcopy then incidence of cancer cervix will be reduced significantly.

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Facial Transplant Ever

A plastic surgeon at New York University's Langone Medical Center has performed the "most extensive" facial transplant ever.

Dr Eduardo Rodriguez performed the transplant over 26 hours in August 2015. In that time, he gave a 41-year-old former firefighter from Tennessee, Patrick Hardison, the face of David Rodebaugh, a 26-year-old bike mechanic from Brooklyn who became braindead after a cycling accident this summer.

Hardison was badly burned when responding to a house fire in Senatobia, Mississippi, on 5 September 2001. He was given the semblance of a face with flesh transferred from his thighs, but in the years leading up to his surgery at Langone he underwent 71 operations at a rate of seven a year and became dependent on painkillers, wrecking his family life.

Hardison was given just a 50 percent chance of surviving the surgery but he was willing to take the risk. Incredibly, the surgery all went to plan, and it has left Hardison feeling normal again and it should restore his impaired sight, too.

At 7.30am on 14 August 2015, the surgery began. Rodriguez started on Rodebaugh, carefully dissecting the half-inch-thick scalp away from the skull. He worked from the back toward the ears, then the nose, which he sawed off. The trick was to cut away the tissue while preserving nerves, muscles and the carotid arteries and the internal jugular veins - the 'big pipes'.

The procedure was not without drama, as Hardison's jugular vein proved to be bigger than that which had belonged to Rodebaugh, causing Hardison to lose blood dangerously. Dr Rodriguez improvised, inserting one jugular into a minutely cut hole in the side of the other.

Refference: https://www.theguardian.com/us-news/2015/nov/15/face-transplant-plastic-surgeon-firefighter-new-york-magazine

Orion -Doctors Meet Together Program at BIRDEM Hospital :

Orion -Doctors Meet Together program was arranged at 4thjune, 2016 at Dhaka Club (Bengal Art Lounge). Professor (Dr.) A.K Azad Khan was the chief guest of this program. All departmental head of Ibrahim Medical College attended this program. Our honorable Chairman Madam Ms. Arzuda karim & honorable Managing Director Mr. Salman Obaidul Karim also attended this program. Our honorable Chairman Madam had given special speech & vote of thanks on the behalf of Orion Pharma Ltd.

Orion Pharma Medical Scholarship

Orion Pharma Welfare Trust had arranged Medical Pharma Scholarship program for poor & talented Govt. Medical students every year. In this year 2016 Orion Pharma welfare Trust provided scholarship over 8 (eight) students which was selected by lottery. Our Honorable Board of Trustee Ms. Arzuda Karim attended this program. In this way Orion Pharma Ltd are standing beside many future doctors of this country by securing their golden future.

বিভিন্ন মেডিকেল কলেজের মেধাবী ও দরিদ্র শিক্ষার্থীদের বৃত্তি প্রদান অনুষ্ঠানে কেক কাটা হয়

দরিদ্র শিক্ষার্থীদের বৃত্তি দিল ওরিয়ন ফার্মা লিমিটেড

করপোরেট সামাজিক দায়বদ্ধতা থেকে বিভিন্ন মেডিকেল কলেজের মেধাবী ও দরিদ্র শিক্ষার্থীদের বৃত্তি দিচ্ছে ওরিয়ন ফার্মা লিমিটেড। 'ওরিয়ন মেডিকেল স্কলারশিপ প্রোগ্রাম'-এর মাধ্যমে এই বৃত্তি দেওয়া হচ্ছে।

ওরিয়ন গ্রুপের পরিচালক ও ওরিয়ন ফার্মা ওয়েলফেয়ার ট্রাস্টের সম্মানিত ট্রাস্টি আরজুদা করিম গত মঙ্গলবার ওরিয়ন হাউসে এক অনুষ্ঠানে বৃত্তির চেক আটজন শিক্ষার্থীর হাতে তুলে দেন।

ওরিয়ন ফার্মা লিমিটেড দেশের ২০টি সরকারি মেডিকেল কলেজের প্রতি শিক্ষাবর্ষের (১ম-৫ম বর্ষ) চারজন করে শিক্ষার্থীকে বৃত্তি দিচ্ছে। অসচ্ছল শিক্ষার্থীরা এই বৃত্তির জন্য আবেদন করতে পারবেন। বিজ্ঞপ্তি।

North South University-Pharma Fest-2016

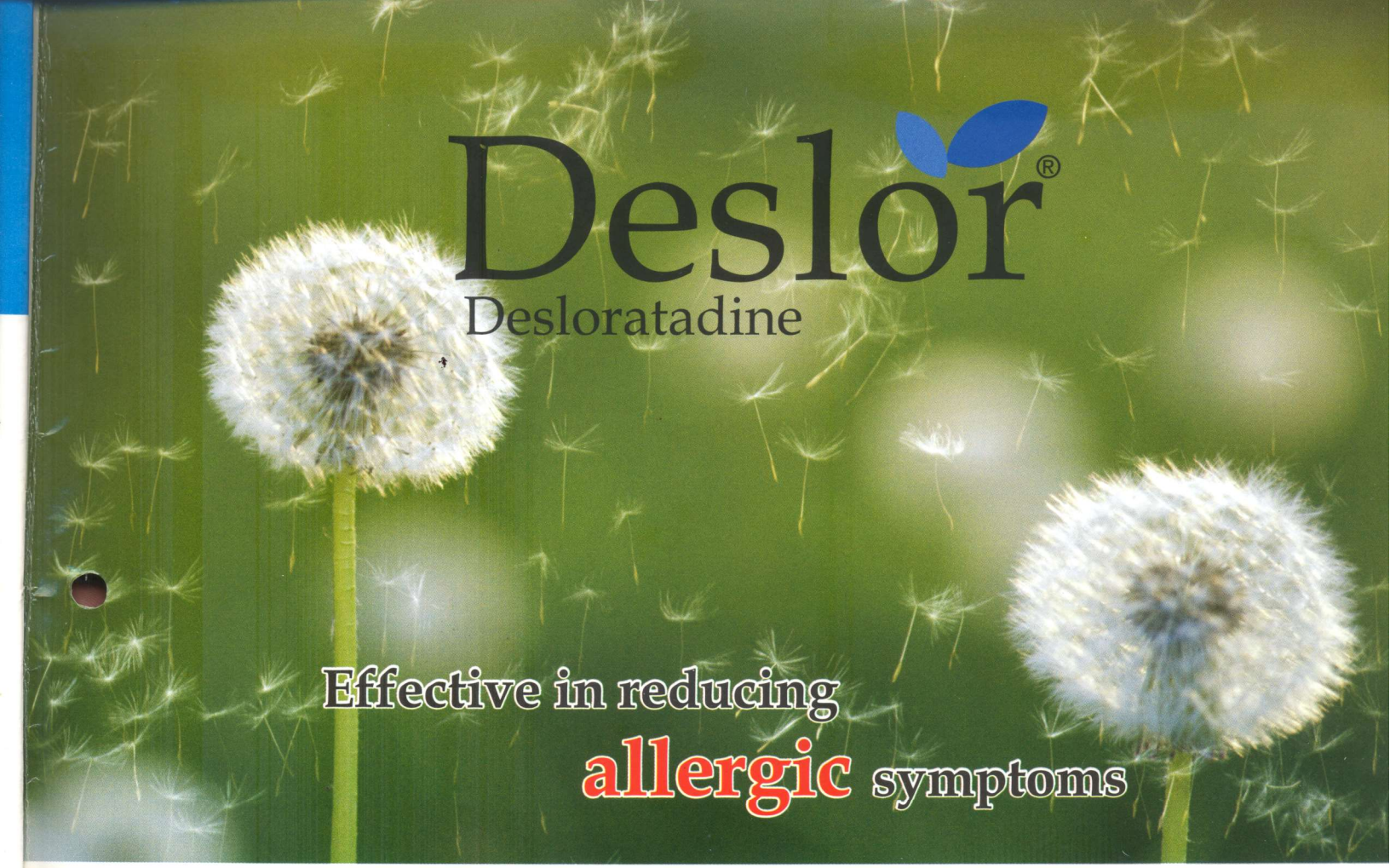
Orion Pharma Ltd attended North South University Pharma Fest-2016 at North South University Campus on the behalf of MSD Department.They enjoyed visiting our stall. We motivated students about pharma market & collect their CV for job opportunities. We also arranged quiz contest which was sponsored by Fish & Co Restaurant.

Round Table Meeting (RTM)

A Round Table Meeting was arranged by the Department of Paediatrics of Khulna Medical College Hospital.The Head of the Department of Paediatrics, Assistant Professor (Dr.) A.K.M Mamunur Rashid was the Chief Guest. Orion Pharma Ltd MSD department arranged many RTM at different Medical College every month.

Scientific Seminar

Orion Pharma Ltd arranged a Scientific Seminar at Narayangonj Club. Alhaz Dr. Shahnawaz Chowdhury, President (BMA & Diabetic Association Narayangonj) was the chief guest of this Program. The topic of the program was "Hyperlipedemia" which is the major health concern among every people nowadays.



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