

ORIGINAL ARTICLE

Post-operative Advantages of Transanal Endo-rectal Pull Through (TERPT) over Swenson's Procedure in Terms of General Surgical Complications

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Abstract:

Popular Swenson's pull through is still the most commonly practiced 'Gold Standard' of operative treatment for rectosigmoid Hirschsprung's disease. But minimally invasive transanal endo-rectal pull through (TERPT) is now being increasingly practiced worldwide for its treatment in many centres. Here experiences at Dhaka Shishu Hospital regarding the post-operative advantages of TERPT over Swenson's procedure are compared in terms of three general surgical complications, namely, urinary voiding dysfunction, wound sepsis and anastomotic stenosis. It is a prospective study during January 2000 to December 2001 on 32 (age, body weight, resected rectosigmoid length and follow-up duration matched) biopsy confirmed patients of rectosigmoid Hirschsprung's disease. The patients were divided into two Groups: Group A (n = 16) and Group B (n = 16) who under went TERPT and Swenson's pull through respectively. χ^2 (with Yate's correction) test was used for statistical analysis. In Group A (TERPT) the post-operative urinary voiding dysfunction (retention/incontinence), wound sepsis and anastomotic stenosis were significantly lesser than the Group B (Swenson's). Through this short term post-operative comparative study, TERPT was found to be more advantageous than the Swenson's pull through procedure in terms of three general surgical post-operative complications.

Introduction:

Hirschsprung's disease is recognized as the commonest cause of neonatal intestinal obstruction¹. In 90% cases, it involves the

recto-sigmoid region². Pull through operations devised by Swenson, Duhamel and Soave have been regarded as the 'Gold Standard' of operative treatment for Hirschsprung's disease. Though each of these procedures has the advantages and disadvantages of its own, none of the procedures described for definitive treatment of Hirschsprung's disease could achieve perfect functional result³.

Transanal endo-rectal pull through (TERPT) is a minimally invasive technical modification of Soave (endorectal) pull through operation where entire mucosectomy procedure is done through perineal approach without laparotomy or laparoscopy. Like Soave operation, TERPT

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psychological effects which are shock, irritability, depression, social withdrawal, apathy (detachment, loss of caring), nightmares/flash backs, diminished interest in activities or sex, loss of security/loss of trust in others, feeling of guilt. The other significant effect is the development of Rape-related Post Traumatic Stress Disorder (RR-PTSD). According to the a study of the National Centre of Victims of Crime & Crime Victims Research and Treatment Center, 1992 nearly one third of all rape victims develop RR-PTSD some time during their life time¹.

Sexual assault is an ever growing problem and has been present in all societies and at all times. It is perhaps the most despicable human behaviour and warrants added attention from all quarters. The medical examination of sexual assault cases is vital for the subsequent court proceedings and the need for a meticulous examination cannot be over-emphasized. Societal recognition of the gravity of this offence and the punishment for such offences has been enshrined in the law codes from ancient times.

Although gone are the days when a defiled woman would have to go with "hue and cry" to the neighbouring township and show the injury done to her to men of good repute there still remains room for much development of legal as well as medical expertise in the detection of sexual assault². In the context of Bangladesh there are certain drawbacks in the reporting, examination and court procedures which are related to certain deficiencies in the system. These have been discussed in this article and some remedies have been suggested which may help to improve the system.

Materials and method:

This study was carried out at the Department of Forensic Medicine, Sir Salimullah Medical College, Dhaka from the period 1st January 2005 to 31st December 2006. During this period all the cases which were sent for medico-legal examination from different police stations of southern Dhaka region to the Forensic Medicine Department were included in the study. Prior to the examination the informed written consent was obtained from the victim. If no consent was given this was recorded and the victim was sent back. The data was collected by taking the history of the incident as stated by the victim and subsequent physical, radiological and pathological examinations. The physical examination included both external and internal components. The external component included measurement of height and weight, number of teeth and two identifying marks. The internal component of the examination was carried out in the special examination room within the department and in the presence of the departmental female attendant. The secondary sexual characteristics were observed and any signs of injuries on the body were closely examined and recorded using sketches, if necessary. The per-vaginal examination was done with the victim in the lithotomic position and the swabs were collected prior to examination. The radiological examinations for estimation of age were done at the Radiology Department of Sir Salimullah Medical College. X-rays of the major joints were done to estimate the age by seeing the ossification of bones. The radiological estimation of age was correlated with the apparent age and the opinion on age was given. The test for detection of spermatozoa was done at the Pathology

Department of Sir Salimullah Medical College. The vaginal swabs were collected in sterile containers and sent to the pathology department immediately after examination or kept in the refrigerator in case the swab could not be sent on the same day. The opinions as to sexual assault were based on physical and pathological examinations.

Results:

Out of 238 reported cases/complaints 105 (44.12%) refused examination. Thus out of

were found to have findings consistent with recent forceful sexual intercourse and were classified as positive cases. Thirty nine (29.32%) had no signs of recent forceful sexual intercourse and were classified as negative cases. Seventeen (12.78%) cases showed findings which were classified as habituated to sexual intercourse. In two (1.50%) cases no opinion as to the presence or absence of sexual assault could be given. The distribution is shown Figure-1.

No age is excluded from sexual assault but the

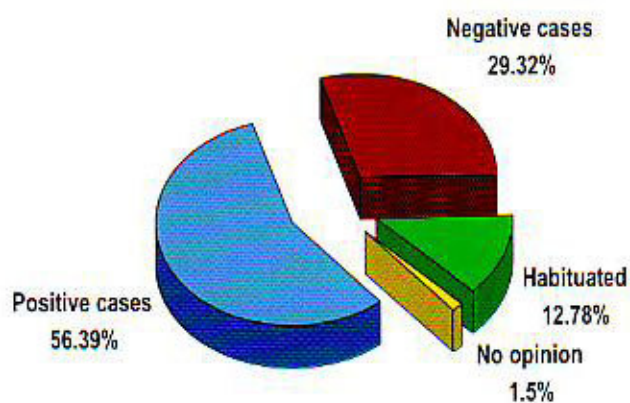


Figure-1 : Distribution of cases.

238 cases of alleged sexual assault 133 (55.88%) victims were actually examined. Among these 133 cases 75 (56.39%) victims

study revealed that age group of 11-15 years (48%) were mostly affected. The age distribution is shown in Figure-2.

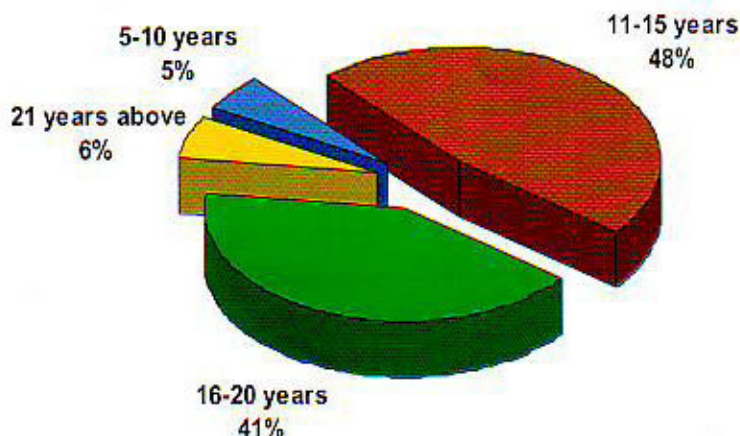


Figure-2 : Age distribution of the study population.

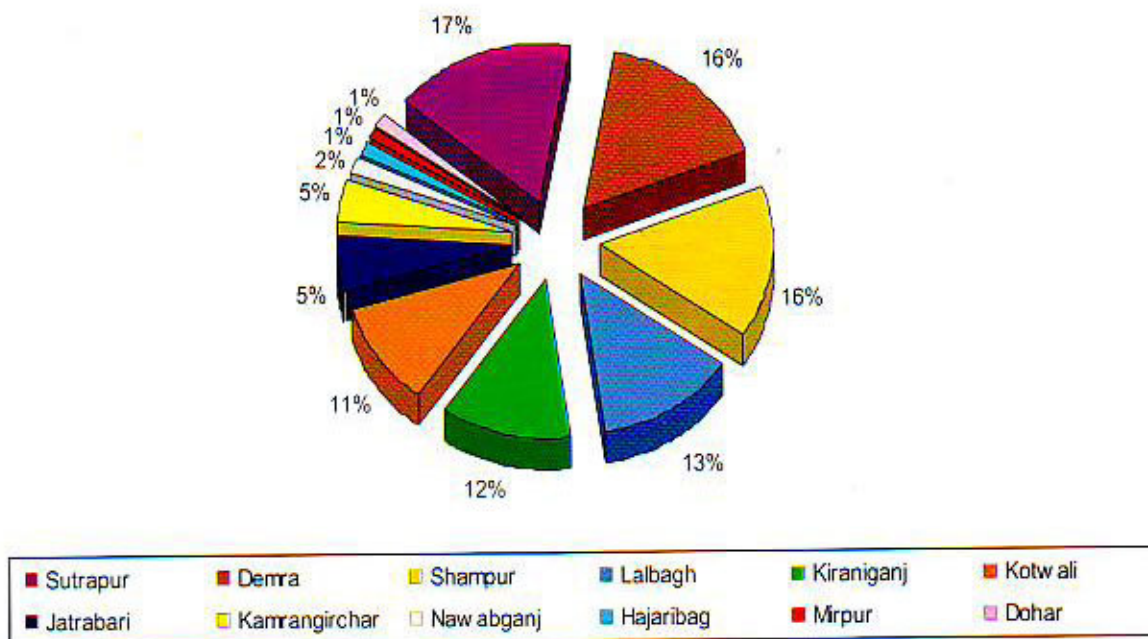


Figure-3: Distribution of cases as reported from different police stations.

Although both sexes may be affected by sexual assault the majority is female. This study also revealed a predominance of females.

Sexual assaults were carried out irrespective of religion but in this study 96% victims were muslims. This is perhaps due to the fact that Bangladesh is a muslim majority country.

The number of cases received from various police stations vary according to population density and other factors. This is shown in Figure-3.

The maximum percentage of refusal rate was due to fear of repercussion (59.05%). Other causes of refusal are shown in Table-I.

Table-I: Distribution of refused cases according to the causes

Causes of refusal	Number of refused cases	Percentage
Fear of repercussion	62	59.05%
Examination by male doctors	22	20.95%
Complexities of system	16	15.24%
Lack of faith in the system	05	4.76%
Total	105	100%

Discussion:

The forensic medical examination plays a fundamental role in the investigation of sexual assaults³. It has often been said that the experience of a medical examination which needs to be carried out after a person is sexually assaulted is sometimes worse than the assault itself. Sadly, such a situation is often not untrue. As reporting begins with the police there needs to be a friendly and receptive environment at the police station.

In the present study, victims first reported to twelve police stations situated in southern Dhaka region. None of these police stations are equipped with facilities for handling victims of sexual assault. Ideally, a police station should have separate facilities for catering to the special needs of persons who have experienced sexual assault³. The psychological and ethical aspects surrounding an incident of sexual assault are also often overlooked by doctors⁵. The high incidence (44.12%) of refusal for examinations found in this study may be related to above mentioned factors.

It may be mentioned here that a One-stop Crisis Centre (OCC) has been operational in Dhaka Medical College Hospital for a few years. This centre caters to the needs of victims of sexual and other forms of violence. The noteworthy aspect of this centre is that the victim comes here directly and receives all legal and medical help. It is not required for the victim to go from place to place to get all the necessary examinations and other formalities done⁶.

The establishment of OCC is a positive step to enhance the quality of the sexual assault examination and reporting which plays a vital role in subsequent court proceedings. Such centres should be established up-to the district level which will undoubtedly reduce the refusal rate.

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