

HISTOLOGICAL STUDY OF NEONATAL BOWEL IN ANORECTAL MALFORMATIONS

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ABSTRACT

Anorectal malformations are the congenital condition, seen in approximately 1 in 5000 live births. It affects male and female in the ratio of 1.3:1. Anorectal malformations include a wide range of malformations, that not only involves the anus and rectum, but it also involves urinary and genital tract.

Aims and objectives of the study, was to understand the structures involved in anorectal malformations by histological study of surgically excised segments of involved part of neonatal intestine and to understand the degree and cause of possible structural impairment in different segments of involved parts of neonatal bowel that may help in the surgical management of anorectal malformations. Present study was conducted on surgically excised segments of fifteen cases of anorectal malformations, that have been collected from Department of Paediatrics Surgery, IMS, BHU. After that processing of the samples have been done and blocks have been prepared. Then after sectioning and staining with Hematoxyline and Eosin, findings have been noted under the microscope. Histopathological examination revealed the abnormalities of varying degrees. To conclude this study supports that the malformed segments should be excised, regarding controversial issue of preserving or excising the distal segment of anorectum for better functional outcome.

KEYWORDS: Anorectal malformations, neonatal bowel, histological study.

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INTRODUCTION

Anorectal malformations have been recognised in the animals since the time of Aristotle. Amussat, in 1835, first sutured the rectal wall to the skin edges, which could be considered the first anoplasty.

Anorectal malformations are commonly seen in neonates. The boys are at higher risk than girls in the ratio of 1.3:1[1] and the incidence of anorectal malformations ranges from 1 in 2,500 to 1 in 5,000 [2]. Anorectal malformations include a wide range of malformations, that not only involves the anus and rectum, but it also involves urinary and genital tract.

High type of lesion resulting into rectovaginal, rectovesical or rectourethral fistula, because in these types bowel is placed higher in the pelvis. However, in low type lesion there may be stenosis of anus and rectum or they may end in a blind pouch because, the terminal bowel is lower in situation [3]. The etiology and pathogenesis of anorectal malformations is not clear, and may be multifactorial [4, 5]. Various studies were carried out on functional as well as histopathological aspects of the condition on human and animals [6, 7, and 8]. The studies carried out in human that mainly focused on histology and immunohistochemistry which suggests the structures involved in anorectal