

## **Obliteration of the Lumen of the Vermiform Appendix**

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**Key words:** Appendix. Obliteration of lumen, Lymphoid infiltration

**Abstract:** - The appendix being the common site for inflammation, an idea came to the mind that if the lumen is obliterated whether we can prevent inflammation. With this idea at the back of the mind a study was made in appendices which showed obliteration of the lumen or a very little lumen. 228 biopsy specimens sent to the pathology department of our college during the past 1 and 1/2 years were used for the study. We observed that 40 specimens showed narrowing of the lumen which was further classified into total obliteration which was observed in 12 specimens, slit like lumen in 21 cases and a very small lumen in 7 cases. The incidence was more in chronic inflammation and in males. The obliteration of the lumen of appendix was more common in the age group ranging from 20- 40 years during which time the lymphoid infiltration is also more due to repeated infections.

The appendix being the common site for inflammation, the present study was carried out to analyze whether obliteration of lumen or very little lumen has any relation to inflammation.

### **Materials and Methods**

228 biopsy specimens sent to the pathology department of our college during the past 1 and 1/2 years were made use for the study.

### **Observations**

40 specimens showed narrowing of the lumen which was further classified into a very small lumen in 7(17.5%) cases (Fig. 1), slit like lumen in 21(52.5%) cases (Fig. 2)

and total obliteration in 12(30%) specimens (Fig. 3)

Table 1 The age incidence of obliteration of lumen in vermiform appendix

Range of Age	No of cases
01-10	-
11-20	06
21-30	12
31-40	12
41-50	08
51-60	Nil
61-70	02

The age incidence of obliteration of lumen was more during 21 to 40 years (Table 1)

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Table 2 Incidence of nature of inflammation

Nature of Inflammation	No. of cases
Chronic	32
Acute	066
Actue in a previously chronic condition	02

The incidence of obliteration of the lumen was more in chronic inflammation (Table-2)

Table 3 Sex prevalence in obliteration of vermiform appendix

Sex	No. of Cases
Male	24 cases
Female	16 cases

The sex prevalence is more (24 cases) in males and less (16 cases) in females (Table 3)

Table 4 Length of appendices studied

Length of the Appendix	No of Cases
2-4 cm	12
4-6cm	20
6-8cm	07
8-10cm	01

The obliteration of the lumen of appendix was more in the shorter specimens whose length was not greater than 6 cm (Table-4)

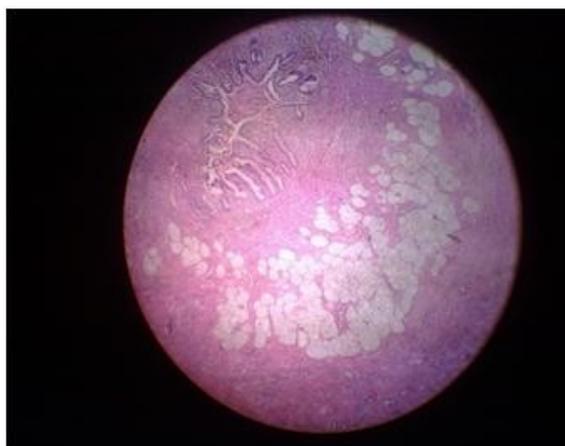


Fig. 1 Appendix with small lumen

### Discussion

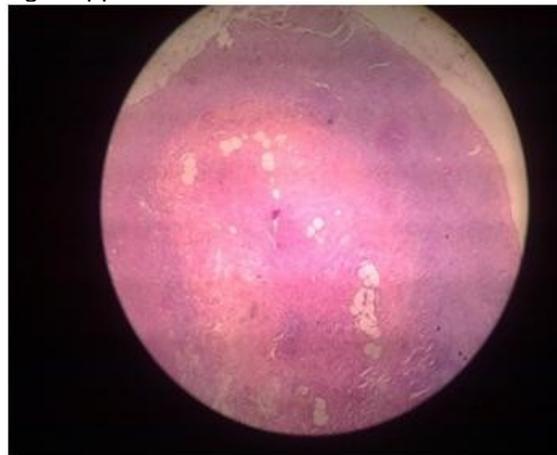
Some of the findings reported by Collins (1936) were as follows: In a series of 1054 specimens 39% showed varying degrees of lumen obliteration; 61.4% were males and 38.5% were females. In the present study of 228 specimens, 40 cases

(17.6%) showed varying degrees of obliteration. 60% were males and 40% were females. According to Collins (1936) there were 254 appendices (24.2%) less than 6cm in length. In this study, the shorter specimens revealed higher percentage of obliteration than those specimens whose length was more than 6cm. In the present study there were 32(80%) appendices less than 6cm in length out of 40 appendix specimens. The incidence of obliteration of appendix lumen was more in chronic appendicitis which was also associated with lymphoid proliferation. Maximow (1930), Palmer and Higgins (1993) all agree that fibroblasts may arise from lymphocytes. Mallory (1929) has clearly shown that endothelium also serves as a source of reticulum production. These two cellular elements are important factors in the production of obliteration

Fig. 2 Appendix with slit like lumen



Fig 3 Appendix with obliterated lumen



## Conclusion

The age of incidence ranged from 20–40 years. This is too early for physiological involution of the lumen of appendix. The presence of varying number of lymphoid follicles and higher incidence of occlusion in chronic appendicitis favors inflammatory cause for obliteration of lumen. If appendix inflammation can be managed conservatively it may lead to occlusion of lumen of appendix. The obliteration of the lumen of appendix was more common in age group ranging from 20-40 years during which time the lymphoid infiltration is also more due to repeated infection.

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