

AN ANATOMICAL ABNORMALITY AND ITS VARIATION OF VERMIFORM APPENDIX

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Abstract: Vermiform appendix is a worm like diverticulum arising from the caecum with an average of 9 cm and 5mm in diameter. A rare variation of vermiform appendix and its variations were noted in the adult male cadaver in our regular anatomical dissections. Generally vermiform appendix is located in the right iliac fossa yet we found its variation of its lengths in size and its abnormal location. We found vermiform appendix is located inside the left side half scrotum which is more considerable significance in medical diagnosis.

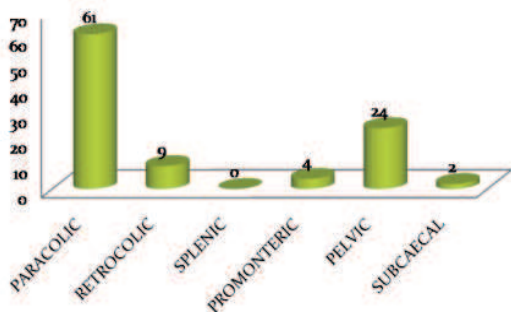
Keywords: Caecum, Vermiform appendix, Scrotum, Variation, Abnormality.

Introduction: The vermiform appendix was first described by Leonardo da Vinci in 1492. Appendix is a worm like diverticulum which is tubular vestigial structure situated in the right iliac fossa. Anatomically, the position of the appendix can vary with respect to the caecum and can be paracolic, retrocaecal, splenic, promonteric, pelvic and subcaecal. Identification of the normal position of appendix is important because in appendicitis variable positions may produce various signs and symptoms related to its position.

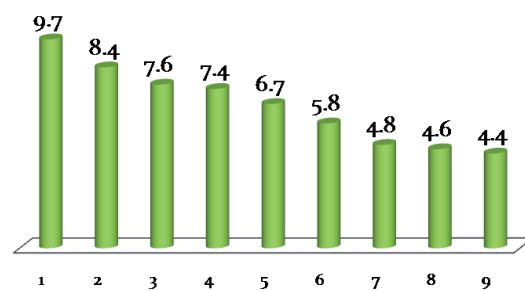
Materials & Methods: Human cadavers, Scissors, Blade scalpel, Inch scale, Cotton & other stationaries.

Observations: During of our routine dissections we had found the different varied types of caecum with its analysis as

TYPE	PERCENTAGE
Paracolic	61 %
Retrocolic	9 %
Splenic	0 %
Promonteric	4 %
Pelvic	24 %
Subcaecal	2 %



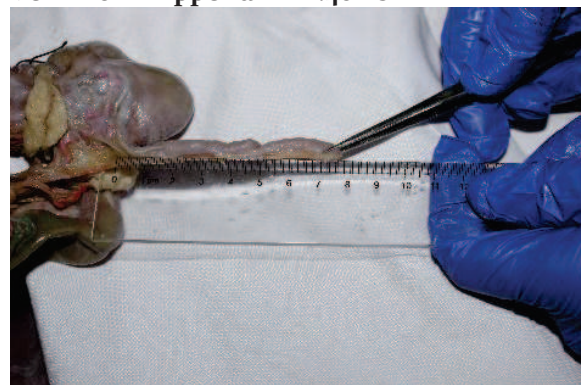
MEASUREMENTS OF APPENDIX



Vermiform Appendix – 9.7 cms



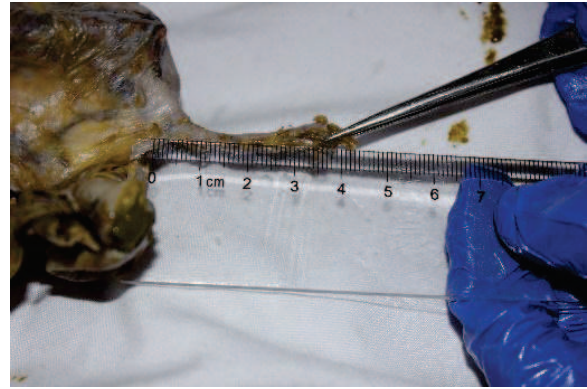
Vermiform Appendix – 8.4cms



Vermiform Appendix – 7.6cms



Vermiform Appendix – 7.4cms



Vermiform Appendix – 4.6cms



Vermiform Appendix – 6.7cms



Vermiform Appendix – 4.4cms

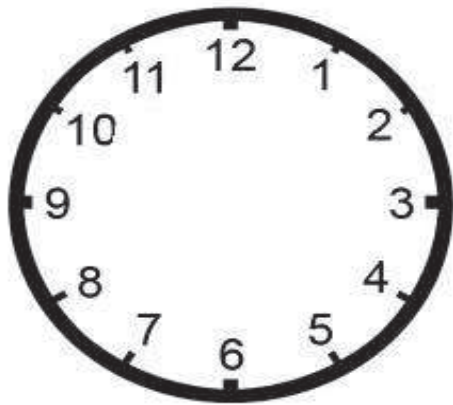


Vermiform Appendix – 5.8cms



Vermiform Appendix – 4.8cms

Discussion: The vermiform appendix is a narrow, vermian tube that arises from the posteromedial caecal wall, 2cm below the end of the ilium. It is the only organ in the body that has no constant position. Both Male and female Cadavers were included in this study. The vermiform appendix was located by following the anterior taenia coli and its position was determined basing on clock position



- 11: Paracolic
 12: Retrocaecal
 2: Splenic
 3: Promonteric
 4: Pelvic
 6: Subcaecal

The most commonest appendix found is retro-caecal and pelvic. But in our study we observed most common in paracolic and pelvic. The length of the appendix from the base to the tip was measured with the help of measuring scale and the values were recorded. We found the length of appendices varying from 9.7 cm, 8.4 cm, 7.6 cm, 7.4 cm, 6.7 cm, 5.8 cm, 4.8 cm, 4.6 cm, 4.4 cm. Out of the average 9 cm appendix we found in our dissections with appendix as 9.7 cm.

Reference:

- Jagiassi, Saraswati N. Patel, Decolorization of Azo Dyes By Free Living Sunil Radhakrishin; Life Sciences International Research Journal, ISSN 2347-8691, Volume 1 Issue 1 (2014): Pg 90-98
- Laparoscopic Appendectomy : Importance of Yellow - M NATARAJAN et al
- Study of Morphological Variations of Vermiform Appendix and Caecum in Cadavers of Western Maharashtra Region - Nilesh Ashok Salwe, P.G. Kulkarni and R.S. Sinha -International Journal of Advanced Physiology and Allied Sciences 2014, Volume 2, Issue 1, pp. 31-41, Article ID Med-177
- Vaghela V. M, Dodia P.P, Status of Bule Bull (*Boselaphus Tragocamelus*) in Sea ; Life Sciences international Research Journal, ISSN 2347-8691, Volume 2 Issue 1 (2015), Pg 370-371
- Delic, J., et al. Variation in the Position and Point of Origin of the Vermiform Appendix. Med Art. 2002. 56 (1) 5-8.
- L. N. Tagad, S. N. Mate, S. S. Ubale, Interrogation of Seasonal influence on Seed Quality of Ground Nut (*Arachis Hypogaea* L Merrill) ; Life Sciences International Research Journal, ISSN 2347-8691, Volume 2 Issue 2 (2015): Pg 36-39
- Hollinshead, H.W., 1971: Anatomy for Surgeons the Thorax, Abdomen and Pelvis. 2nd Ed. New York: Medical Book Department of Harper and Brothers Publishers. 2; 484-496. 293; 509-510.
- McBurney, C. The Incision Made in the Abdominal Wall in Cases of Appendicitis, with a description of a New Method of Operating. Ann Surg. 1894. 20; 38-43.
- Dr. Shailja Acharya, Feeding Habits And Trophic Level of Channa Punctatus in Gambhir Reservoir (M.P.) ; Life Sciences International Research Journal, ISSN 2347-8691, Volume 2 Spl Issue (2015): Pg 45-48
- Moore, K.L., Persaud, T.V.N., and Torchia, M.G. The Developing Human: Clinically Oriented Embryology. 2011. 8th Ed. Philadelphia: Elsevier. 231.
- Rakesh Gautam, Prashant Bissa, Population Dynamics of Nilgai ; Life Sciences international

During appendicitis is a condition characterized by inflammation of the appendix. Pain begins in the center of the abdomen. The pain begins to localize more clearly to the right lower quadrant, as the peritoneum becomes inflamed. This peritoneal inflammation, or peritonitis, results in rebound tenderness, it presents at McBurney's point marked between the junction of lateral 1/3 and medial 2/3rd of the line drawn from the anterior superior iliac spine to the umbilicus. Fever and an immune system response are also characteristic of appendicitis.

Appendicitis usually requires the removal of the inflamed appendix, in an appendectomy either by laparotomy or laparoscopy. Untreated, the appendix may rupture, leading to peritonitis, followed by shock, and, if still untreated, death.

The surgical removal of the vermiform appendix is called an appendectomy. This removal is normally performed as an emergency procedure when the patient is suffering from acute appendicitis. In the absence of surgical facilities, intravenous antibiotics are used to delay or avoid the onset of sepsis. In some cases, the appendicitis resolves completely; more often, an inflammatory mass forms around the appendix. This is a relative contraindication to surgery.

Conclusion: Surgeons need to be aware of this variation for better operative outcomes.

- Research Journal , ISSN 2347-8691, Volume 2 Issue 1 (2015), Pg 367-369
12. Tahir Iqbal, Rabnawaz, Asif Iqbal, Farah Tahir and Safeer Zaman. A Meta-Analysis of History and Functions of Vermiform Appendix. Pak J Surg. 2011. 27 (4) 316-320.
 13. [2] Schwartz, S.J., et al. Principles of Surgery Schwartz. 7th Ed. Philadelphia: MC Graw-Hill. 1999. 3; 1383-1385.
 14. Jyothi, N. Sambasiva Rao, Pathogenicity of Three Fungal Species interaction P. ; Life Sciences International Research Journal , ISSN 2347-8691, Volume 1 Issue 1 (2014): Pg 99-104
 15. [3] Bakheit, M.A., and Warille, A.A. Anomalies of the Vermiform Appendix and Prevalance of Acute Appendicitis in Khartom. East African Medical Journal. 1999. 16 (6) 338-340.
 16. Variations in arterial supply of vermiform appendix - International Journal of Anatomical Variations (2011) 4: 52-54
 17. *Imamsaheb, S. J, Hanchinamani, C. N*, Influence of Boron and Naa on Growth, Yield and Quality of tomato (*Solanum Lycopersicum L*) ; Life Sciences International Research Journal , ISSN 2347-8691, Volume 2 Spl Issue (2015): Pg 13-17
 18. Treves F. Lectures on the anatomy of intestinal canal and peritoneum in man. Br Med J. 1885; 1: 527-530.
 19. Kelly HA, Hurdon E. The Vermiform Appendix and Its Diseases. Philadelphia, W.B. Saunders. 1905; 189.
 20. <http://www.hindawi.com/journals/isrn/2014/871048/>
 21. [https://en.wikipedia.org/wiki/Appendix_\(anatomy\)](https://en.wikipedia.org/wiki/Appendix_(anatomy))
 22. *Yoosuf, Subi, Kamat, Sheela, Kamat, Dilip*, A Comparative Antifungal Study of Coriander Oil and Its Nano Emulsion; Life Sciences International Research Journal , ISSN 2347-8691, Volume 2 Spl Issue (2015): Pg 69-74

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