

Original Article

MORPHOLOGICAL FEATURES AND MORPHOMETRIC PARAMETERS OF HUMAN FETAL VERMIFORM APPENDIX AT DIFFERENT GESTATIONAL AGES

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ABSTRACT

Background: Vermiform appendix is a vestigial organ of variable position in the abdomen. Its location, size and shape are subject to alterations with the race of the population and limited information is available on developmental morphology and morphometry of fetal appendix. **Materials and Methods:** In the present study 60 appendix specimens from aborted human fetuses of 17-40 weeks gestational age and both sexes were studied by dissection method for age related morphological features and morphometric parameters. The morphological parameters observed include its location in relation to abdominal region, caecum and ileum, clock position, position of base in relation to caecal wall and direction of tip of appendix. The morphometric parameters of length, diameter and distance between ileo-caecal orifice and appendicular orifice were measured. **Results:** The location of appendix in relation to abdominal region presented higher incidence of sub-hepatic position in less than 30 weeks fetuses and right iliac fossa location in more than 30 weeks fetuses. **Discussion:** in comparison with the literature available on adult vermiform appendix the observations in the present study are in favor of influence of developmental processes on the localization of appendix including its base, ileo-caecal orifice, direction of tip, distance from McBurney's point. **Conclusion:** Results of this work suggests variability in localization of appendix during prenatal development and the influence of gestational age, sex, size, growth of caecum and gut on its final position and was different from that of adults. There is increase in the morphometric parameters of appendix with increase in gestational age. Both morphological and morphometric parameters were different between sexes.

KEY WORDS: VESTIGIAL; VERMIFORM APPENDIX; MCBURNEY'S POINT; GESTATIONAL AGE; MORPHOLOGY; MORPHOMETRY.

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Access this Article online

Quick Response code



Web site:

International Journal of Anatomy and Research
www.ijmhr.org/ijar.htm

Published: 01 July 2013

Received: 30 May 2013

Accepted: 19 June 2013

INTRODUCTION

Vermiform appendix is a blind ended tube originating from posteromedial wall of caecum. It is absent in fish, amphibians, reptiles, birds and most mammals. It is found in few marsupials and few rodents. Among primates it is present in

anthropoid apes and man. In man appendix develops through evolution from the old world monkeys [1]. It was stated that the function of appendix is similar to that of a lymph node.