

Does colonic dilation infer the colonic diseases?

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Introduction: The large bowel disease may produce radiographic alteration in size, shape, location, and radiopacity. However, most of the colonic disease commonly have no detectable radiographic abnormalities and most radiographic findings of colonic disease are not pathognomonic. Some authors have suggested that the diameter of the normal colon should be less than the length of the body of 7th lumbar vertebra.

Purpose: The objective of the present study is to show that colonic dilation defined as the increased ratio of the colonic diameter:L7 (CD/L7) is not strongly suggestive of colonic disease.

Materials and Methods: The ratio of the maximal colonic diameter and the length of the body of the 7th lumbar vertebra calculated from abdominal radiographs of 314 patients presented to the Veterinary Medical Center of Chungbuk National University was determined. Also, definitive diagnosis as well as clinical signs from medical record was reviewed.

Results: Colonic dilation was found in 73% of cases. However, colonic dilation without colonic diseases was identified in 59% of cases. Diseases category consisted of cardiorespiratory (13.04%), digestive (13.04%), musculoskeletal (13.04%), urogenital (11.5%), neurologic (8.6%), endocrinologic (7.9%), hematologic (5.7%), normal (22.4%), and ETC (4.3%). The mean ratio of the colonic dilation without colonic diseases was 1.4 ± 0.4 ranged between 1.0 and 3.6.

Conclusions: Higher rate of false positive values was found on diagnosis of colonic disease based on CD/L7 ratio. Therefore, it is essential that historical and clinical data has to be combined with the radiographic signs of colonic dilation to make a diagnosis of colonic disease.

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