

The “cup and ball” sign of appendico-colic intussusception

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Although rare, the “cup and ball” sign is a characteristic imaging finding seen when an appendiceal mucocele intussuscepts into the large intestine (cecum) [1]. The “cup” is formed by the dilated appendix, and the “ball” is formed by the base of the dilated appendix intussuscepting into the cecum (Fig. 1a, b) recalling the appearance of the “cup and ball” toy (Fig. 2).

An appendiceal mucocele is an obstructive dilatation of the appendix caused by intraluminal accumulation of mucoid material. It is a rare disease accounting for approximately 0.2–0.3% of all appendectomies [1]. It is histologically categorized into four types: Retention cyst, mucosal hyperplasia, mucinous cystadenoma, and mucinous cystadenocarcinoma [2].

Most cases of an appendiceal mucocele are asymptomatic but present as acute abdomen when there is associated inflammation, or rarely, when there is intussusception into the cecum. The clinical picture is very similar to acute appendicitis warranting surgery. However, having a preliminary diagnosis through imaging is crucial in knowing the anatomy and preventing future complications like perforation with possible development of pseudomyxoma peritonei [3].

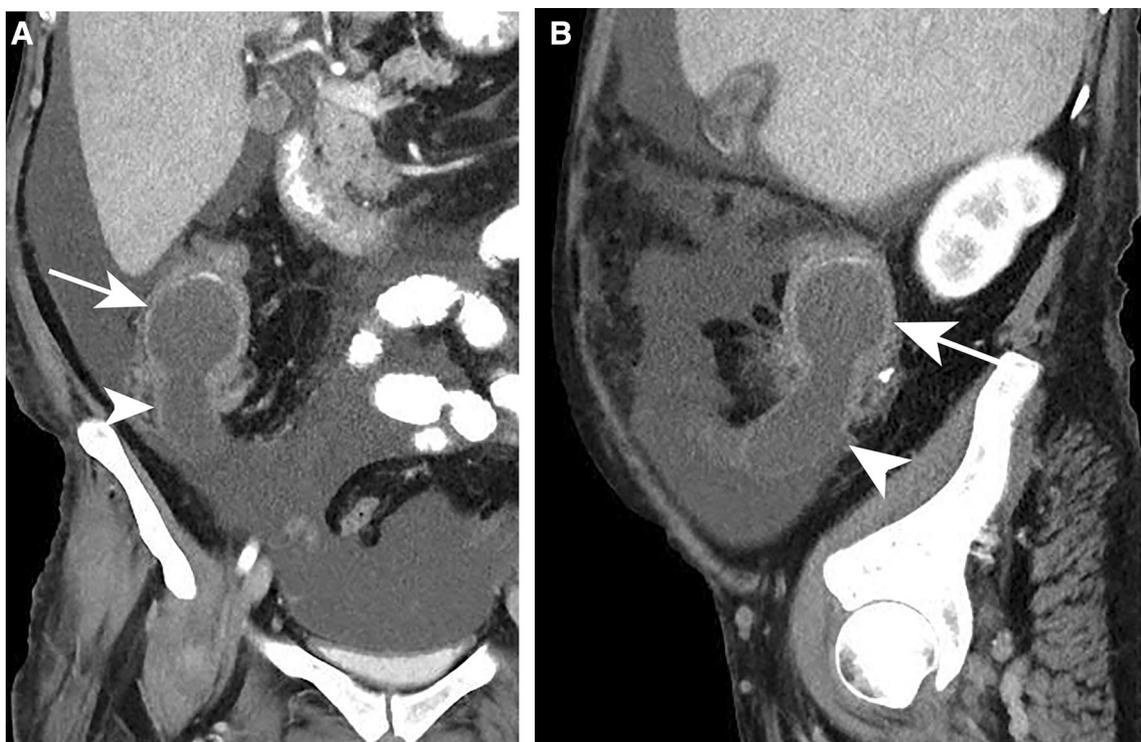


Fig. 1. **A** Coronal and **B** sagittal contrast enhanced CT images of the abdomen show an appendiceal mucocele forming the cup (arrowhead), the base of which is intussuscepting into the cecum forming the ball (arrow). This

was surgically confirmed to be an appendix mucocele (secondary to a low grade mucinous neoplasm of the appendix) intussuscepting into the cecum.



Fig. 2. A photograph of a “cup and ball” toy, which recalls the imaging findings..

Compliance with ethical standards

Conflict of interest All authors, David Livingston, Allie Metcalfe, Shweta Bhatt, declare that they have no conflict of interest.

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