

## All Median Raphe Cysts (MRCs) are Really Always to Operate?

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### SHORT COMMUNICATION

Recently a 3-year-old boy, with negative past medical history, referred to our Surgical Department to evaluate a perianal lesion. At physical examination, a 3-mm-wide whitish cord was identified, extending from the base of the penis and scrotum along the midline to the perineum and anal mucocutaneous margin. (**Fig. 1**) The child had no history of constipation, soiling or bleeding, or perianal inflammatory phenomena. No other lesions on the preputial skin were identified. The patient was placed on follow-up and at this time, after 6 months, we do not consider any surgical intervention appropriate.

Median raphe cysts (MRCs) are rare congenital lesions of the male genitalia that develop along the median raphe of the penis from the meatus to the perineum. (**1,2**) These cysts are usually benign and present from birth, and most babies are asymptomatic.



**Figure 1.** The arrow key shows the cyst

The pathogenesis of MRCs is an incomplete closure of the genital or urethral fold which gives rise to an epithelial rest that then can form a cyst or canal. The “tissue trapping” theory of pathogenesis has also gained some support. It suggests that during fusion of the median raphe, epithelial cells can get buried and further evolve into a cyst or canal. Other theories have been proposed, but none have sufficient supporting evidence. (**3**)

The idea proposed by Carrasco L et al. of correlating an immunohistochemical study over a long period of time to the histology of the MRC is very suggestive and the conclusion that the positivity of GATA3 and CK7 in MRC supports the urothelial origin of these cysts raises some questions about the correct treatment.

Surgery in most cases, as emerges from the literature, should be limited to those cases with no regression and persistence of symptoms, after careful follow-up. (**2**) In most cases several cysts may continue to be free of symptoms during childhood, and may resolve spontaneously. (**4**) Sinopidis X et al. suggest a surgical approach considering that benign, median raphe cystic formations may present metaplasia of their epithelial components and it could represent a psychological discomfort for years, with high risk of trauma or infection. (**5**)

In our opinion, the treatment options depend by the size and the clinical symptoms. We believe that in case of asymptomatic cysts, the observational management is correct, while a surgical treatment should be related for larger cysts at risk of rupture or infection, that could cause other symptoms in adulthood impacting

urinary or sexual function. The line drawn by this clinical study could suggest the establishment of a multicenter study in pediatric age.

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