

Peer Review

Review of: "Embryological Development of Anorectal Malformations: A Hypothesis"

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I had the opportunity to review the interesting paper by Levin, "Embryological Development of Anorectal Malformations: a Hypothesis." First, let me state that I am not an embryologist or a pediatric surgeon. I am a dysmorphologist and clinical geneticist with over 45 years of experience in assessing children with congenital malformations. These have included ARMs and the so-called persistent cloaca. I have also collaborated with the CDC on the National Birth Defect Prevention Study and classified the cloacal defects in that investigation.

The paper by Levin is quite innovative. I appreciated the combination of radiographic and surgical experience applied to knowledge of classic embryology. I also appreciated the discussion of classical and persistent cloaca and the challenging of the conventional wisdom that could change surgical approaches.

Below are some comments meant to improve the paper:

1. I would suggest that the author state the hypothesis in a very concise and succinct manner in the abstract. While I was able to infer what the hypothesis is, I became confused in the abstract and main article about different ARMs as to what the precise hypothesis is and which ARM is being included in the hypothesis.
2. I also would suggest that the author at least mention the defect that is in the pediatric and genetics literature called the urorectal septum malformation sequence. This defect includes the persistent cloaca and is widely used in the genetics community; yet I see no mention of it here and no reference to any of the papers. A recent paper by SS Nayak in the Amer J Med Genet 2023 could be cited. I am positing that the author doesn't agree with it as a designation, but that should at least be stated and discussed.
3. In section 4.1, I would cite a paper that refers to or defines "atavisms" (e.g., "Atavisms" by BK Hall, 2010). I agree with the author's point, but most readers will not be familiar with the concept.
4. In section 4.2.1, TUM is used as an acronym before it is defined in the next section; spell out the meaning of this abbreviation/acronym the first time it's used.
5. In section 4.2.4, the letter "I" is missing from the "n" in the first sentence.
6. In section 6.4, the author uses the term "exodermal," but I think this is meant to be "ectodermal."

Declarations

Potential competing interests: No potential competing interests to declare.