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Scrotal orchidopexy for perineal ectopic testis

Short title: Management of perineal ectopy

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Abstract

Perineal ectopic testis (PET) is a rare form of testicular migration abnormality. We report a case of neonatal PET diagnosis and early management. In reported cases, diagnosis is often late, well after the age of 1 year, and surgery is conventionally performed by an inguinal and scrotal approach. Here, surgery consisted of scrotal orchidopexy, with placement in the dartos, at the age of 6 months. Follow-up was uncomplicated. This approach has not been reported for this form of ectopy, but seems perfectly suitable. There is no advantage to delaying the treatment of this type of ectopy.

Keywords: perineal ectopy, scrotal approach, management

1. Introduction

The undescended testis (UT) results from two abnormalities: an ectopic testis that is not in the normal migration path, and cryptorchidism, corresponding to arrested testis migration. In most cases, the testicle can be palpated. Inguinal and scrotal surgery is recommended and generally performed at about the age of 1 year [1].

Perineal ectopic testis (PET) is the rarest form of ectopy (1%) described (relative to other sites, e.g., suprapubic, femoral, superficial inguinal, and transverse). We report here a case of perineal ectopic testis treated via a scrotal approach and discuss the management of this particular entity, based on a literature review.

2. Case report

A 23-day-old boy born at term was seen in consultation for right perineal swelling. Right PET was diagnosed clinically (firm perineal swelling, ovoid, painless, empty ipsilateral bursa and hypoplasia, with no associated inguinal hernia). The contralateral testis was normotrophic and in place. The penis was normal (**Figure 1a, b**).

Treatment consisted of scrotal orchidopexy, with insertion into the dartos, at the age of 6 months. We prepared the bursa by an arcuate genitocrural incision (**Figure 1c**). The vaginal process was linked. The testis, normal in size and morphology, was easily released into a subcutaneous compartment by the same route. Absorbable braided thread stitches were placed on either side of the long cord of the testis, between the dartos and the subcutaneous plane. The incision was then closed in two planes. The patient was discharged on D1. No complications were observed immediately after surgery nor after 1 year of follow-up (**Figure 1d**).

3. Discussion

Since the first case of PET described in 1786 by Hunter [2], just under 250 cases of this condition have been reported [3,4]. PET accounts for less than 1% of cases of abnormal testicular migration [5], probably fewer than 1/10,000 cases.

The diagnosis of PET, like that of undescended testes, is based purely on clinical examination [1,6], but can be made early (before the age of 6 months). A case of prenatal diagnosis, in the 38th week of gestation, was also reported by Mazneikova [7].

Testicular ectopy is linked to a migration abnormality that seems to have multiple causes [3]. It has been suggested that it results from an abnormal fixation of the gubernaculum to the anterior wall of the abdomen during descent or an aberrant migration of the gubernaculum during the testicular descent phase.

The main goals of UT surgery [1] are to decrease the risk of subfertility, particularly in cases of bilateral cryptorchidism, and to decrease the risk of testicular degeneration, particularly if the testis is located in a high position. It is recommended to perform surgery at 6–12 months or even at 18 months [8]. These two goals of UT surgery are not particularly relevant to PET surgery, because the testicle is already extra-abdominal.

The other goals of UT surgery are to treat the associated abnormalities of the inguinal canal. This involves closing the peritoneovaginal duct or its vestige, to reduce the risk of torsion, while placing the testicle in the bursa, an approach with both esthetic and psychological benefits [1]. These goals apply to PET surgery. A case of extravaginal testicular torsion has been described as a complication of testicular ectopy in an 18-month-old infant [9]. Patients often undergo PET surgery at later ages than reported in the literature. It is therefore important to bear in mind the importance of a complete clinical examination, including an examination of the external genitalia, before the baby leaves the delivery room, and on the day 8 examination (8th day certificate) recommended in the French healthcare system, to facilitate early diagnosis.

In the particular case of PET, given the rarity of the risks described [9], there is no clear advantage to be gained by delaying the operation until the child is at least 6 months old.

With the inguinal and scrotal approach conventionally used, the vaginal process can be linked after the opening of the superficial inguinal orifice, and it is possible to free the testicle and the cord, with sufficient length for lowering. However, the less used scrotal approach [8,10] seems to be the most suitable for this indication. In this approach, the vaginal process can be released and closed without inguinal opening. The testicle and its long cord can also be released more easily via this route than via the inguinal route. It is then possible to position

the testicle without difficulty in a subcutaneous scrotal compartment constructed via the same approach. This pathway has esthetic benefits and can be widened if necessary.

4. Conclusion

Perineal ectopic testis is a rare entity. Surgery can be performed earlier than for classic testicular ectopy, from the age of 6 months. There is a clear indication for the use of the scrotal route in the surgical treatment of PET.

Relationship of Interest: The authors have no relationship of interest to declare.

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Figures

Figure 1: a), b) Presurgical appearance: the testis is palpated at the perineal level; c) intraoperative photograph showing the scrotal approach and the testicle is released with a long cord; d) postsurgical photograph, taken 1 month after the intervention

Figure 1

