

seven diagnostic and two therapeutic cycles. Open scrotal exploration was carried out to find out if PESA would also have adversely affected the epididymides and to recognize any trauma caused. Spermatozoa were retrieved in only two of these patients of which one was suitable for ICSI. There was no significant local trauma, but we occasionally noticed some slight bleeding from the puncture site (M.Tsirigotis and I.Craft, unpublished data). It was these observations, together with the advantages mentioned above, which led the authors to routinely adopt the PESA technique for patients who required surgical sperm retrieval, and to resort to the testes (testicular sperm aspiration) should spermatozoa not be found in the epididymides. The latter would have significant application in patients with secretory azoospermia where spermatozoa are more likely to be found in the testes only.

We trust the authors' ongoing study will come to the same conclusions.

## References

Khalifa, Y. and Grudzinskas, J.G. (1996) Micro-epididymal sperm aspiration (MESA) or percutaneous epididymal sperm aspiration (PESA)? The dilemma. *Hum. Reprod.*, **11**, 680.

M.Tsirigotis and I.Craft

*London Gynaecology and Fertility Centre Ltd.  
112 Harley Street, London W1N 1AF, UK*

Dear Sir,

The letter by Khalifa and Grudzinskas (1996) raises an interesting point about comparing two techniques of sperm aspiration from the epididymis. Several groups have now contributed data to the introduction and improvement of these methods. Our own studies initiated the first successful epididymal sperm retrievals for use in ICSI with irreparable cases of obstructive azoospermia (Silber *et al.*, 1994; Tournaye *et al.*, 1994), and the first successful use of a method to recover testicular spermatozoa, namely testicular sperm extraction (TESE) for intracytoplasmic sperm injection (ICSI) in cases of irreparable obstruction (Devroey *et al.*, 1994; Silber, 1995a,b). We believe that the cryopreservation of the retrieved epididymal spermatozoa for use in one or more ICSI procedures gives micro-epididymal sperm aspiration (MESA) the benefit over TESE of only one procedure ever being needed (Devroey *et al.*, 1995a).

Our impression is that the introduction of testicular sperm retrieval and ICSI for cases of azoospermia whether caused by germinal failure or obstruction is more important than whether one uses a needle or scalpel (Devroey *et al.*, 1995a,b; Silber, 1995a,b; Silber *et al.*, 1995c), and the issue of how one retrieves the spermatozoa is a rather minor debate. We can perform MESA under local anaesthesia in less than half an hour, freeze enough spermatozoa for 20 future ICSI cycles, and send the patient home the same day with minimal post-operative pain. In almost all cases except congenital absence of the vas, a simultaneous vasoepididymostomy can be performed with a 90% chance of success, the first choice of most patients with obstruction (Silber, 1978, 1989). TESE can be performed

through a tiny 3 mm incision, to retrieve enough motile spermatozoa for obstructive cases, with a procedure that requires no more than 15 minutes and only one stitch.

It is of interest that TESE works as well with maturation arrest as with Sertoli cell-only and other forms of germinal failure. In these cases, we can retrieve spermatids directly from the Sertoli cell, dissect them clean, and inject for ICSI, with results similar to ejaculated spermatozoa.

With germinal failure, the contemplation of needle aspiration is obviously ridiculous. With reconstructable cases of obstruction, percutaneous sperm aspiration is damaging and makes no sense. With MESA, many millions of motile spermatozoa can be obtained (to freeze for future ICSI) from the often tiny locus in the epididymis where they do exist and not have to resort to multiple, damaging stabs.

Whatever method is used to retrieve spermatozoa for ICSI, the most ethical approach is not to make a decision based purely on the surgical limitations of the particular physicians.

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S.Silber

*St Luke's Hospital  
Urology and Microsurgery  
Suite 730, 4th Floor, Holland Wing  
224S Woods Mill Road, St Louis  
Missouri 63017, USA*