Summary and Conclusion

As well as semen and endocrinological analyses, the evaluation of testicular size is an initial and important method for estimating spermatogenesis and for monitoring the changes in pubertal status to optimize the treatment selection. Testicular volume can be easily determined using POM.

There is a strong linear relationship between the results of the POM and US, whereas the POM often overestimates the testicular volume to a greater extent than US.

In this study, the relationship between POM measurement and US was determined. Using US as the estimated gold standard, this study concluded that POM was equally reliable despite overestimating testis volume. There is also a significant positive correlation between the results of POM and US. In the case of testis <25 cm^3, there were overestimation of the testicular volume using the POM. When measuring testis size by the POM, we must be aware that the skin and subcutaneous tissue are measured as well.

Scrotal ultrasound is relatively expensive for routine use in andrology clinics. During US measurement, the testis easily becomes compressed,

resulting in distortion of shape and dimensions, while POM is not expensive and doesn't distort the shape and dimensions of the testis.

Adequate spermatogenesis is presumed to be possible only in a testis of normal or nearly normal volume. Testicular volume measured using any of POM and or US significantly correlated with the parameters of testicular function, including sperm count and semen volume.