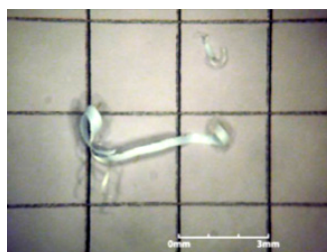


# Particle formation and risk of embolization during transseptal catheterization: comparison of standard transseptal needles and a new radiofrequency transseptal needle

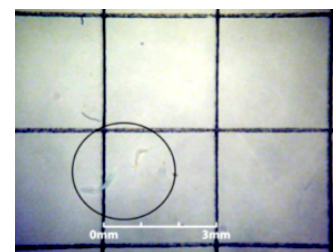
Authors: Gregory K. Feld, Jay Tiongson, Ganiyu Oshodi

## HIGHLIGHTS

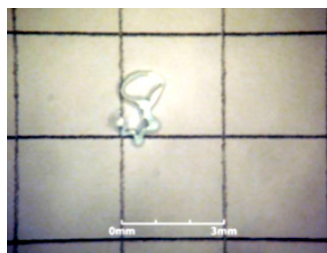
- ▶ This study examined the risk of particle formation (due to skiving) during transseptal procedures. A standard needle, a reverse-bevel needle, and a radiofrequency needle were compared.
- ▶ The standard needle generated clinically relevant, visible particles when used without the stylet. Use of the stylet reduced the amount of visible particles generated but did not eliminate the problem.
- ▶ Use of the reverse-bevel needle reduced the amount of visible particles generated but did not eliminate the problem.
- ▶ Use of the radiofrequency needle eliminated the problem of visible particles.



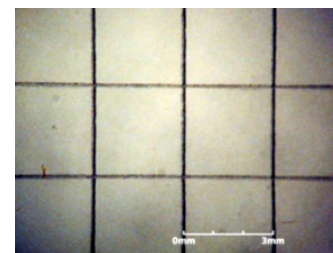
*Standard needle without stylet*



*Standard needle with stylet*



*Reverse-bevel needle*



*NRG® Needle*