

The Tissue Dilator: A Victim or the Aggressor?

Sir,

The case report entitled “Bent guide wire of central venous catheter” by Raut *et al.* made for interesting reading.^[1] We would like to make certain observations on this report.

Bending or twisting of the guide wire is a known phenomenon during central venous catheterization and may lead to complications.^[2] However, bending of the tissue dilator itself, which is made of a tougher material, is not commonly encountered during clinical practice.

It appears from the accompanying diagram that the dilator along with the guide wire had bent almost 100° from the intended direction of insertion. Bending of the dilator to such an extent will require considerable force that is generally not applied during the procedure. This much resistance can only be produced against a bone and can be easily appreciated. A photograph showing the bend in the dilator would have helped in better appreciation of the incident.

The skin, subcutaneous tissue, and the entry point in the vessel wall need to be dilated, and any insertion of the dilator beyond the vessel wall as depicted in the accompanying diagram should be avoided.^[3]

We believe that the insertion of tissue dilator at a more vertical angle than the guide wire was the triggering event in this case. Considerable force can be inadvertently applied during this step which can lead to not only kinking but also unraveling of the guide wire,^[4] leading to serious consequences. However, this force is not sufficient enough to produce the bend in the dilator as described.

When the dilator is advanced over the guide wire, it should move over a firmly held guide wire. The moment the dilator “hangs up” and moves the wire forward along with, one should get suspicious as at this point kinking may occur.^[5] Avoidance of excessive force, inserting smallest bore that will allow the wire and inserting the smallest length to reach the vein are some of the suggestions made for safer use of dilators.^[3]

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Conflicts of interest

There are no conflicts of interest.

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