
Editorial

Peripherally-inserted central venous and midline catheters: a new era

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The sector of the new-generation peripherally inserted central catheters (PICC and midline) will record, in years to come, a progressively greater expansion, alongside the availability of highly biocompatible material with low thrombogenicity, and the increasingly more significant emergence of cost (direct and indirect)-related problems connected with the use of traditional central venous accesses. The likelihood that specially trained professional nurses will take on responsibility for their placement, in addition to management, will in fact result in considerable cost savings, similar to what has already occurred in the USA and the UK. A decisive impulse to their use is also coming from ultrasound-guided insertion, which has allowed to get round one of the major limitations of these devices, which is due to the inaccessibility of veins that have been hardened (poor trophicity) near the bend of the elbow; in fact, the use of real-time ultrasound allows to catheterize non-visible deep veins located above the elbow (generally the basilic or brachial vein).

It is therefore useful for both doctors and nurses responsible for parenteral nutrition to become familiar with these devices and know their indications for use, as well as their limitations in terms of nutritional applications. In the case of PICC, it is possible to administer nutritionally complete high-osmolarity solutions because the central position of the tip of the catheter at the atriocaval junction allows the use of such mixtures without damaging the venous wall. On the other hand, because the midline catheter is not a central catheter and

its tip is generally placed in the axillary position, the use of parenteral nutritional solutions is restricted to cases where the osmolarity of the mixture is less than 500 mOsm/L and the pH is around neutral values (>5 and <9). The excellent review by Giorgetti et al (1) in this issue will enable those working in the field to assess the indications for the use of these catheters, avoid any wrong use, and extend their use to some indications that so far were restricted to short- and mid-term central venous accesses.

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