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Editorial
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THE CEPHALIC VEIN : A PROVIDENTIAL VEIN

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The first time, I saw a Port-à Cath operation, was in 1989. The surgeon did it through the cephalic vein, under local anesthesia. In 1990, I had to do it through the subclavian vein, percutaneously, following the policy of the department, again under local anesthesia. Since 1994, I have been doing this operation, through the cephalic vein. So, I asked myself which technique is better and who should do this operation.

To be able to choose between percutaneous and surgical techniques, one should look at the immediate complications of each technique, as delayed complications are nearly similar for both techniques.

The cephalic vein is a superficial, easily accessible vein, between the deltoid muscle and the pectoralis major. Although some anatomical variations do exist, it is nearly always present, if we look for it in the correct plane, between the two muscles, flesh muscles should not be entered. The size of the vein might be small to let the catheter fit in. In that case, we can dissect the external jugular vein, on the same side (the neck should be exposed). The advantage of the cephalic vein technique is that the risk of pneumothorax is nil. Another advantage is that there is no risk of major vessel injuries. The disadvantage of this technique is that it cannot be repeated with the same vein because of thrombosis. This approach needs a surgical background and is done by surgeons. According to Ingrid JOUVIN et al. [1] there are no specific complications related to this technique, but the reported failure rate is high: 7 to 20 %. [2]

On the contrary, percutaneous techniques are preferred by the anesthetists and some surgeons. They are done through internal jugu+lar veins or subclavian veins. The anesthetists prefer the internal jugular vein, with ultrasonographic guidance. They claim it is easy and safe and that ultrasonography is mandatory, from the medicolegal point of view, for percutaneous techniques. Although the use of ultrasonographic guidance reduces the risk of

pneumothorax and major vessel injuries, it is far from nil. Yong Li et al.. [3] reported in a retrospective study of 1695 implantations of Port-à-Caths, 1.2 % pneumothorax,1.1 % bleeding, 0.6 % arterial puncture and 0.3 % nerve injuries. However, the advantage of percutaneous techniques is that they can be repeated through the same vein, if not thrombosed.

When the neck is not suitable (major neck surgery with flaps, infections or thrombosis of the superior vena cava …), femoral vein access can be used, percutaneously or through the saphenous vein.

As to who should do it, I think that surgeons are more skillful in surgical techniques and therefore they should theoretically prefer surgical approaches to percutaneous techniques. Anesthethiologists are more keen on doing percutaneous techniques and on performing ultrasonography and therefore should naturally prefer these techniques. Although I understand that some surgeons prefer percutaneous techniques, I think it is more stressful for them, for having seen them at work. The surgeon can deal with wound problems while anesthetists usually don't and ask for surgical opinions. One should ensure the "sales" and the "after sales".

My preference goes to the cephalic vein approach. It is simple. You don't need to do any undermining between the neck and the subclavian region. The catheter is not visible through the skin of the neck. You don't need to have a post operative X-ray to check for a possible pneumothorax, as fluoroscopy would show the position of the catheter in the superior vena cava. The operation is done under local anesthesia, although some prefer to do it under sedation or general anesthesia. As I said earlier, I have used percutaneous techniques and learnt how to do ultrasonographic guidance. So, it is better for the surgeon to master both techniques. It is not a shame to ask the anesthetist to chime in for help, if necessary, and vice-versa.

It is not a shame to ask the anesthetist to chime in for help, if necessary, and vice-versa. If you want to sleep after a Port-à-Cath operation, if you don't want to come back for a pneumothorax or any other complications, please use the cephalic vein, a providential vein.

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