



Case of Malposition Implantable Port Chamber Catheter

Yasser El Brahmi, Njoumi Nouredine, Mountassir Moujahid, Abdelkader Ehirchiou and Zentar Aziz
Visceral surgery II, Military Hospital Mohammed V Rabat, Rabat, Morocco.

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ABSTRACT

The implantable port chamber catheters are useful for repeated intravenous treatment, they are placed surgically, percutaneously or radio-guided, they can cause variable complications (infection, thrombosis, malposition, product leakage ...). The occurrence of malposition of the distal portion of the catheter is a rare complication. We report a case of malposition (intra-dural and extra medullary position) whose mechanism have not been determined.

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Introduction

The implantable port chamber catheter can be left in for a long period and can be implanted under the skin, allowing a repeated administration of long-term medications. Like all catheters, venous access catheter represent a potential source of complications: peri operative, infection (1,2), thrombosis, extravasation of the injected product and ulcerations or necrosis of the skin as well as mechanical problems such as catheter malposition, migration of distal part and thrombosis of the catheter (3,4).

We report a unique case of malposition revealed by a control radiography.

Observation:

We report a case 50-year-old patient who was following treatment for malignant non Hodgkin lymphoma, transferred to surgical department in order to insert a venous access device. The procedure was carried out without any incident.

In the second day, the patient was transferred to oncology department for chemotherapy. An initial computerized tomography performed for pre-therapeutic evaluation revealed a malposition of the catheter: intra dural and extra medullary (fig 1,2).

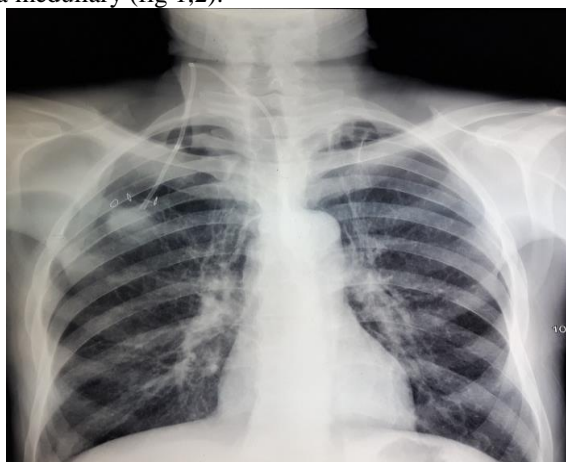


Fig1. chest x-ray showing a malposition of the catheter.

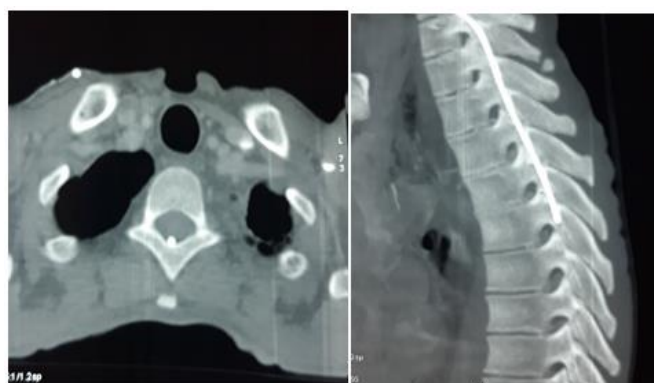


Fig2. CT scan with image reconstruction an intra-dural position and extra medullary of the distal part of the catheter.

Discussion:

The jugular internal access remains the best option, the brachial or femoral access are an alternative in case of impossibility of use of the jugular access (5). The right internal jugular access provides less risk of complication. The position of the distal part of the catheter is ideally situated in the junction vena cava- superior right auricle. Radiological mark: the junction vena cava-atrium is situated 4 cm below the carina.

if a proper x Ray had been done in this case, malpositions would have been detected.

some authors prefer put the port chamber percutaneously radio- guided technology of jugular internal vein which remains safe and less invasive technique than the surgical access, safer than the "blind" puncture, allowing to limit the risks of iatrogenic complications (6,7).

We have to underline the potential gravity of this accident because chemotherapies used in oncology may lead to important toxicity

These complications are a function of the therapeutic class, the accumulated doses, and the combined protocols. fortunately, malposition was discovered before starting of chemotherapy. And the mechanism of this curious borrowed route was not determined.

Conclusion:

The complications of the catheter with port chamber are multiple. Malpositions represents a significant percentage therefor the interest of radiography before and after the procedure helps to decrease the frequency of this complication.

Reference

1. Infectious complications on Med Mal Infect implantable chambers. 1996; 26, RICAI: 666-9
2. Implantable port Chamber Catheters: Epidemiology of Complications and microbiological study of devices after ablation F. Barbut et al. / Pathology Biology 52 (2004) 566-574
3. Complications and becoming implantable chambers: about 60 cases Masson, Paris. Ann Fr Anesth Reanim, 13: 297-300, 1994

4. Complications of an implantable intravenous device for chemotherapy in cancers of the upper aerodigestive tract of otolaryngology, neck and facial surgery 126 (2009) 43- 52
5. Central Venous Catheterization Update Conferences 1997, p. 535-43 © 1997 Elsevier, Paris, and SFAR
6. Implantable port chamber venous devices by echo-guided percutaneous approach: About a series of 102 vascular disease journal patients Volume 38, Issued 1, February 2013, Pages 6-12
7. 2D echo guidance for the placement of implantable port chambers Journal of surgery (2009) 146, 528-531