"MECHANICAL PROBLEMS WITH THE SELF-LOCATING PERITONEAL CATHETERS"

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INTRODUCTION AND AIMS:

Catheter's malfunction related problems are still frequent, and their most determinant factors are the method of implantation and the catheter's design. The different modifications on the classic model of Tenchkoff have been designed by the aim to reduce the malfunction problems .

Lately the self-locating catheter model, designed to avoid the displacements of the catheter, is gaining acceptance, mainly in Europe. But is this advantage offset by the appearance of new complications? The reported incidence of mechanical problems with this kind of catheter is scarce.

We report our experience with the self-locating peritoneal catheters and compare them with catheters type Tenchkoff Swan-neck with coil tip

PATIENTS AND METHODS

From 1996 until 2003 we in used catheters type Tenchkoff Swan-neck with coil tip (TSNC) in our centre. From 2004 we start using the Self-locating catheters. The method of implantation has been the same (minilaparotomy) for both types of catheter.

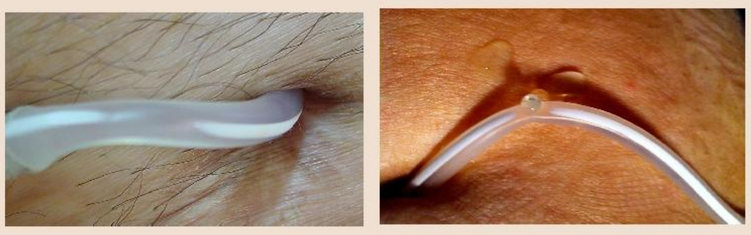
We compared the mecanical problems ocurred with 78 TSNC catheters and 72 SLC

RESULTS:

We have confirmed a lower incidence of catheter displacements with the Self-locating catheters, which in case of appearing, are easily corrigible with conservative measures. Nevertheless we have observed some "singular" problems in patients wearing SLC. We present them here and we hypothesize some possible explanations for these particular problems

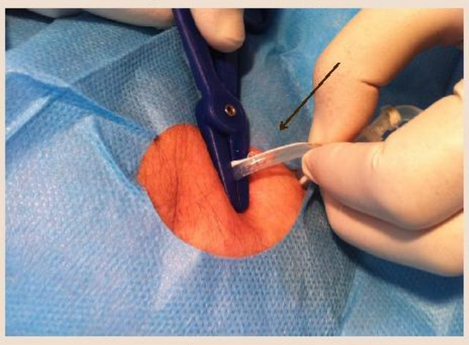
PROBLEMS

- *Disappearance of the white radiocontrast line*: was observed in 2 occasions. They caused a large number of alarms during the cycler drainage in the first patient, and favoured the break of the catheter at this point in the second one.



-*Spontaneous extrusion of the subcutaneous cuff* : occurred in 11 catheters with no relationship to exit-site infection or trauma. In most cases, the event occurred in the first 3 months after implantation and the total absence of granulation tissue on the extruded cuff was notorious

- *Breaks*: occurred in 6 patients, the majority located in the segment inter-cuffs. Clinical they can be confused with refractory leakage

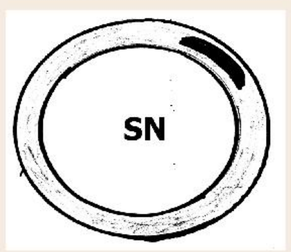


-*Skin ulcer on the external cuff*: it was seen in two patients

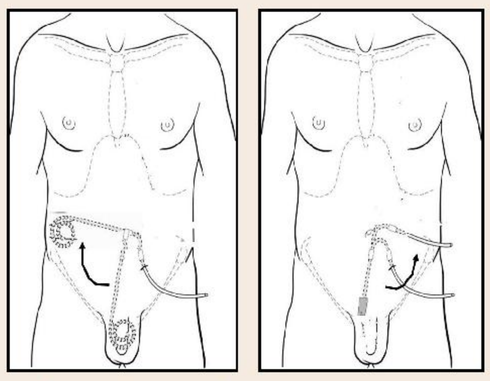
-*Total extrusion of the catheter*: in 1 occasion

HYPOTHESIS

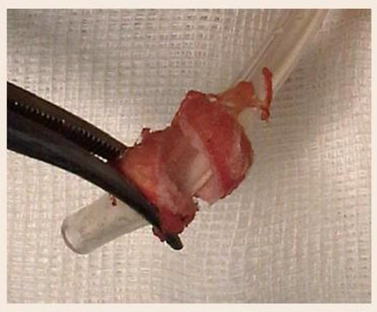
-the radio-contrast line is superimposed to the thickness of the silicone in SLC and not included into it. This explains the smaller thickness of the silicon at this point for maintaining the catheter symmetry, and also the easier unstuck of the line.



-When weight is added to the tip of a straight catheter, the "shape- memory" tends to straighten the catheter at the outer end, that is now the lightest.



-Both the shape and the glued of cuffs are different and coarse, and sometimes we found the cuffs unglued to the catheter. These differences could explain the spontaneous outer cuff extrusion without granulation tissue on it, or the catheter breakage in the cuff proximity.



CONCLUSIONS:

The SLC has proved its efficacy reducing the frequency of catheter displacement. We hypothesize some possible explanations for these particular problems, most of them related with the catheter manufacturing and also to intrinsic reasons of the catheter design. Although we bear in mind that some of the problems that we have encountered might be punctual or even from our implantation technique, we believe that is important to report these kinds of incidents that might not be occasional or focused in a single centre

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M) Dialysis. M2) Peritoneal dialysis.
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