## Il catetere venoso centrale e il paziente in dialisi: convivenza difficile, matrimonio impossibile

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PAROLE CHIAVE: Catetere venoso centrale, Trombosi, Infezioni, Adeguatezza dialitica

## Central venous catheter and hemodialysis patient: hard living together, impossible marriage

Tunneled central venous catheters (TCVC) are widely used for alternative hemodialysis access for patients considered unsuitable for arteriovenous fistula and graft. Since their introduction, they have gained popularity for their unquestionable advantages, such as the possibility for immediate use. However several problems have emerged after their diffusion. This review focuses on possibilities and complications of TCV. The main complications of insertion are generally due to an inaccurate approach to the vein. Ultrasonographic guidance has partially solved this problem and EC-ECG allows an accurate positioning of the tip. Infections, venous and/or TCVC thrombosis and dysfunctions are the most important catheter-related complications. Infections may occur with and without symptoms of systemic illness. Early diagnosis and appropriate antibiotic treatment are essential for saving the catheter. The pathogenesis of infections, strategies for prevention are discussed. Thrombosis and stenosis are well known complications of subclavian and jugular catheterisation. In uremic patients, for temporary use, we suggest to use the femoral position. Protocols for application of thrombolytic agents in TCVC are considered. Dysfunction, defined as the failure to maintain a blood flow of at least 250 ml/min, remains the shortcoming of the system. Adequate look therapy and tip's positions are only two basic aspects. In conclusion a pessimistic outlook on the matter could lead us to consider that the advantages of catheter use are far outweighed by the disadvantages. However we cannot avoid using central venous catheters in our dialysis units and a great challenge will await both physicians and manufactures in the forthcoming years. (Giorn It Nefrol 2001; 18: 176-84)

KEY WORDS: Central venous catheter, Thrombosis, Infections, Dialysis adequacy