

BUTTON HOLE AFTER EIGHT YEARS

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INTRODUCTION

The quality of vascular access plays a crucial role in the process of adequate haemodialysis. Its lifetime and proper function are influenced by many factors. Cannulation methods and the identification of proper cannulation sites are just some of them. The Button Hole approach can be the method of choice for some patients. In our dialysis centre, we introduced this cannulation method in a selective group of patients eight years ago.

OBJECTIVE

The reason for preparing this poster is to share our long-term experience with the Button Hole cannulation method and to present the advantages of this method for a selective group of patients.

METHODS

Describe the steps of the Button Hole tunnel creation and the long-term care of the cannulation site based on nursing standards used in our dialysis centres.

Creation of the "Button Hole" sites is time consuming, technically challenging, and includes the following steps:

- choose the appropriate arterio-venous fistula (AVF) locations to create the Button Hole sites
- through repeated needle insertions into the same site and in the same direction, a subcutaneous tunnel is created
- AVF cannulation is best performed by one nurse or by a maximum of two nurses
- the optimal approach for tunnelling is 8 - 10 cannulations with sharp needles

Cannulation steps:

- proper soaking-off and removal of scabs after the last establishment of AVF (with hydrogen peroxide 3%)
- proper disinfection (Skinsept F)
- cannulation with the use of blunt needles - not by force to avoid injury to the subcutaneous tunnel, which is not yet completely solid after creation
- needle fixation and sterile coverage



In our dialysis centre, we use the Button Hole method of cannulation for:

- short AVFs
- in obese patients



- for cosmetic reasons



CASE STUDY

The case study below describes our longest functional Button Hole sites. Patient M.G has been dialysed since September 2007. As the first cannulation method, we have chosen a rope ladder approach. In 2009, the formation of an aneurysm on the AVF was detected, and for this reason we decided to use the Button Hole cannulation method.

Over the last eight years, there was only one single complication with these button hole sites (infection in November 2014). It was treated with antibiotics (broad spectrum antibiotics in tablets and local therapy with Framykoin ointment on the puncture sites).



During the infection episode, different puncture sites were used. The treatment lasted for 14 days. After the therapy, we started to use the originally created button hole sites again and we successfully use them until today.

CONCLUSION

We have had very positive experience with the Button Hole cannulation method and can confirm it as a safe and reliable method of AVF cannulation. During the years, we have recorded significantly less complications such as aneurysms, stenosis, thrombosis, or AVF infection. It is also rewarding to have satisfied patients with "beautiful shunt hands".

Currently, we use the Button Hole cannulation method with 15% of our patients and can recommend its use to other dialysis centres.