

ACUTE PAIN RELATED TO FISTULA PUNCTURE IN HEMODIALYSIS

HELENA JEŘÁBKOVÁ

B. BRAUN AVITUM | LITOMĚŘICE | CZECH REPUBLIC

INTRODUCTION

During dialysis treatment, we frequently encounter complaints about pain related to arteriovenous fistula (AVF) puncture. Most patients perceive the pain associated with AVF puncture using the dialysis needle as a negative, unpleasant experience connected to the dialysis procedure. Pain significantly contributes to how the quality of life is perceived.



CONCLUSION

In clinical practice both methods of distraction as well as methods of cold application (spraying with ethyl chloride) to the patient's skin for pain control related to puncture of arteriovenous fistula can be used. Some methods can alleviate or eliminate pain associated with arteriovenous fistula puncture with dialysis needle. In the future it is expected that greater attention will be paid to the acute pain associated with the arteriovenous fistula puncture in dialysis patients.

AIM

The aim is to assess subjective perception of pain during arteriovenous fistula puncture and the possibility to influence it using different methods.

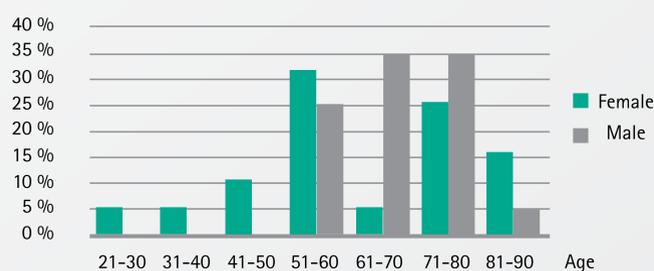
PATIENTS AND METHODS

The study included 39 respondents aged 24-87 years. The group of patients included 19 (49%) women and 20 (51%) men. The mean age of the respondents was 63.6 years (Graph 1). For the AVF puncture in all the patients we used dialysis needle with a diameter of 1.6 mm (16 G). The questionnaire had three sections for three time periods; each containing a numeric rating scale (NRS) for the assessment of pain intensity. The first time period – without methods affecting the pain intensity; the second time period – use of distraction methods (distraction by an interview); the third time period – application of cold to the patient's skin (ethyl chloride spray). In each time period for each patient we obtained twenty measured values. Were handed out 41 questionnaires, 39 of them were returned.

RESULTS

Based on the results of the questionnaire we found that patients reported lower pain intensity associated with the use of arterial puncture needles (A) in comparison with the venous puncture needles (V). Women reported higher pain intensity during arteriovenous fistula puncture than men. When using the described method of distraction the patients reported lower pain intensity scores than during the arteriovenous fistula puncture without using methods to lower the pain. After topical application of cold ethyl chloride spray to the patient's skin, the patients reported lower pain intensity associated with AVF puncture than when using the method of distraction. (Graph 2, 3, 4).

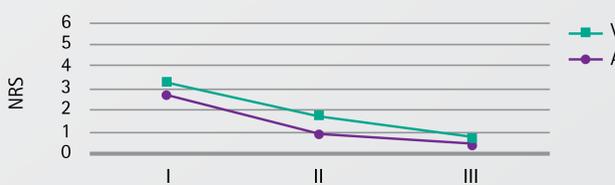
Graph 1 - Age and gender



Graph 2 - Values measured on the NRS pain scale for arterial (A) and venous (V) needle cannulation in I. II. III. periods - females



Graph 3 - Values measured on the NRS pain scale for arterial (A) and venous (V) needle cannulation in I. II. III. periods - males



Graph 4 - Values measured on the NRS pain scale for arterial (A) and venous (V) needle cannulation in I. II. III. periods - total

