The influence of needle diameter on puncture failures in relation to cesarean section and vaginal delivery; a prospective, randomized study.

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Background:
• Comparison of G25 PP and G27 PP in obstetric anesthesia related to technical difficulties and level of experience
• The aims were:
  - if total puncture time, number of failed needle attempts and change of needle were different
  - if there are group difference in Post Dural Puncture Headache (PDPH)

Method:
• Parturients undergoing caesarean section or vaginal delivery using spinal anesthesia are randomized into two groups, G25 and G27
• The anaesthesiologists register their level of experience, patient BMI, procedure time, number of attempts and any change of needle
• A questionnaire regarding any symptoms of PDPH follows each patient
• Exclusion criteria: labour epidural or attempt of this, chronic headache, not informed consent and contraindication to regional anesthesia

Preliminary Results: N=88
G25 PP group: 42, G27 PP group: 46
• Two excluded due to failed dural puncture
• Procedure time longer than 180 seconds is more frequently among residents with less than 3 years of experience
• Residents using G27 as the primary needles required more attempts and changed needles more frequent than residents using G25 or specialists

Conclusion:
Residents with less than 3 years of experience had a prolonged procedure time and more technical difficulties using G27 as the primary needle compared to G25 needle.

Among specialists no significant difference between the needles used was found.

References:

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