

“The Bone Injection Gun (BIG) is the device used for intraosseous access by the Israeli Defense Force (IDF). The purpose of this study is to assess the success rate of intraosseous access using this device.” Nadler et al (2014).

Reference:

Nadler, R., Gendler, S., Chen, J., Lending, G., Abramovitch, A. and Glassberg, E. (2014) The israeli defence force experience with intraosseous access. Military Medicine. 179(11), p.1254-7.

Review of the Bone Injection Gun (BIG) intraosseous access device [http://ctt.ec/7Vdw3+](http://ctt.ec/7Vdw3+@ivteam)
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Abstract:

INTRODUCTION: Obtaining vascular access is of paramount importance in trauma care. When peripheral venous access is indicated but cannot be obtained, the intraosseous route represents an alternative. The Bone Injection Gun (BIG) is the device used for intraosseous access by the Israeli Defense Force (IDF). The purpose of this study is to assess the success rate of intraosseous access using this device.

METHOD: The IDF Trauma Registry from 1999 to 2012 was searched for patients for whom at least 1 attempt at intraosseous access was made.

RESULTS: 37 attempts at intraosseous access were identified in 30 patients. Overall success rate was 50%. No differences in success rates were identified between different care givers. Overall mortality was 87%.

CONCLUSION: The use of BIG in the IDF was associated with a low success rate at obtaining intraosseous access. Although inability to achieve peripheral venous access can be considered an indicator for poor prognosis, the high mortality rate for patients treated with BIG can also stand for the provider’s low confidence in using this tool, making its use a last resort. This study serves as an example to ongoing learning process that includes data collection, analysis, and improvement, constantly taking place in the IDF.

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