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Dry arthroscopy of the wrist with a single-use, 1.9 mm chip-on-tip system in wide-awake local anesthesia no tourniquet

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Background

The Covid-19 pandemic has resulted in reduced resources for surgery performed in general anesthesia in most western countries, prompting an increase of procedures performed in local anesthesia. The purpose of this paper is to report our initial experiences using a single-use, 1.9 mm chip-on-tip system (NanoScope™ System, Arthrex GmbH Munich, Germany) for diagnostic arthroscopy in wide-awake local anesthesia no tourniquet (WALANT).

Methods

We retrospectively reviewed our 34 first wrist dry arthroscopy cases using a single-use, 1.9 mm chip-on-tip system.

Results

In total, 34 wrists arthroscopies were performed, 13 patients were acute injuries; all acute patients underwent a MRI before arthroscopy. In total, 9 Ligament sutures or reconstructions, three four-corner fusions and one radiocarpal fusion were subsequently undertaken. Four patients were treated with a cast immobilizing the wrist, five patients with stabilizing wrist exercises for 3-4 months under the supervision of a hand therapist, nine patients were treated with NSAID, physical therapy and a wrist orthosis and three patients with free mobilization of the wrist. In total, 4/20 MRIs showed false positive and 6/20 false negative findings.

Conclusions

We see two main advantages in the use of the needle chip-on-tip system: the simplicity of the procedure, and the minimal invasive character of the procedure due to the needle size that makes it possible to perform the procedure in WALANT. We find that the needle chip-on-tip arthroscopy system is a safe and cost-efficient alternative to wrist MRI with superior diagnostic ability. The procedure is minimally invasive and well-suited for WALANT.