

32 Gauge Needles for Antiangiogenic Intravitreal Injections

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Advantages:

In the era of pharmacological therapy for the treatment of proliferative and/or exudative maculopathies intravitreal injections have become the principal route of administration of drugs. To our knowledge, to date only 27 G and 30 G needles have been used for intravitreal administration of these drugs. 32 G needles are routinely used in laboratories for intravitreal injections in animals and have already been proposed for intravitreal administration of anticancer drugs. We decided to investigate the use of a commercially-available 32 G needle in the current clinical practice of intravitreal injection in a group of patients affected by exudative maculopathy of different cause.

Methods:

We used 32 G needles to treat a series of 88 consecutive patients with neovascular AMD, myopic choroidal neovascularisation (CNV), diabetic macular edema and retinal venous occlusion, for a total of 282 injections between January 2007 and March 2008. Ranibizumab or Bevacizumab were administered with intravitreal injection according to a standard technique with use of povidone-iodine as a part of preinjection preparation under topical anesthesia. Follow-up after each injection ranged from 4 weeks to 1 year.

Effectiveness / Safety:

In our experience the use of 32 G needles in routine intravitreal injections of antiangiogenic factors has proved safe, causing no major complication. Immediate visible reflux took place in 15% of the patients, but was influenced by the angle of insertion of the needle. Intravitreal injections with 32 G needles has met favourable response among our patients, who have not felt significant pain, but only a feeling of gentle pressure at the moment of injection. 32 G intravitreal injection is likely less traumatic to the eye. The idea of multiple, frequent intravitreal injections may therefore become more acceptable to our patients.