Abstract 26

CRITICAL ANALYSIS OF TECHNIQUES AND MATERIALS USED IN SYRINGES AND NEEDLES USED FOR INTRAVITREAL INJECTIONS

Oral

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Purpose:

Intravitreal injections are the most commonly performed intraocular treatment. Because they may induce adverse events, awareness of the materials and techniques are essential to reduce these sight-threatening complications. This review provides insights into the needles, syringes, silicone oil coating, syringe handling, anesthesia, and safety issues related to materials and techniques.

Methods:

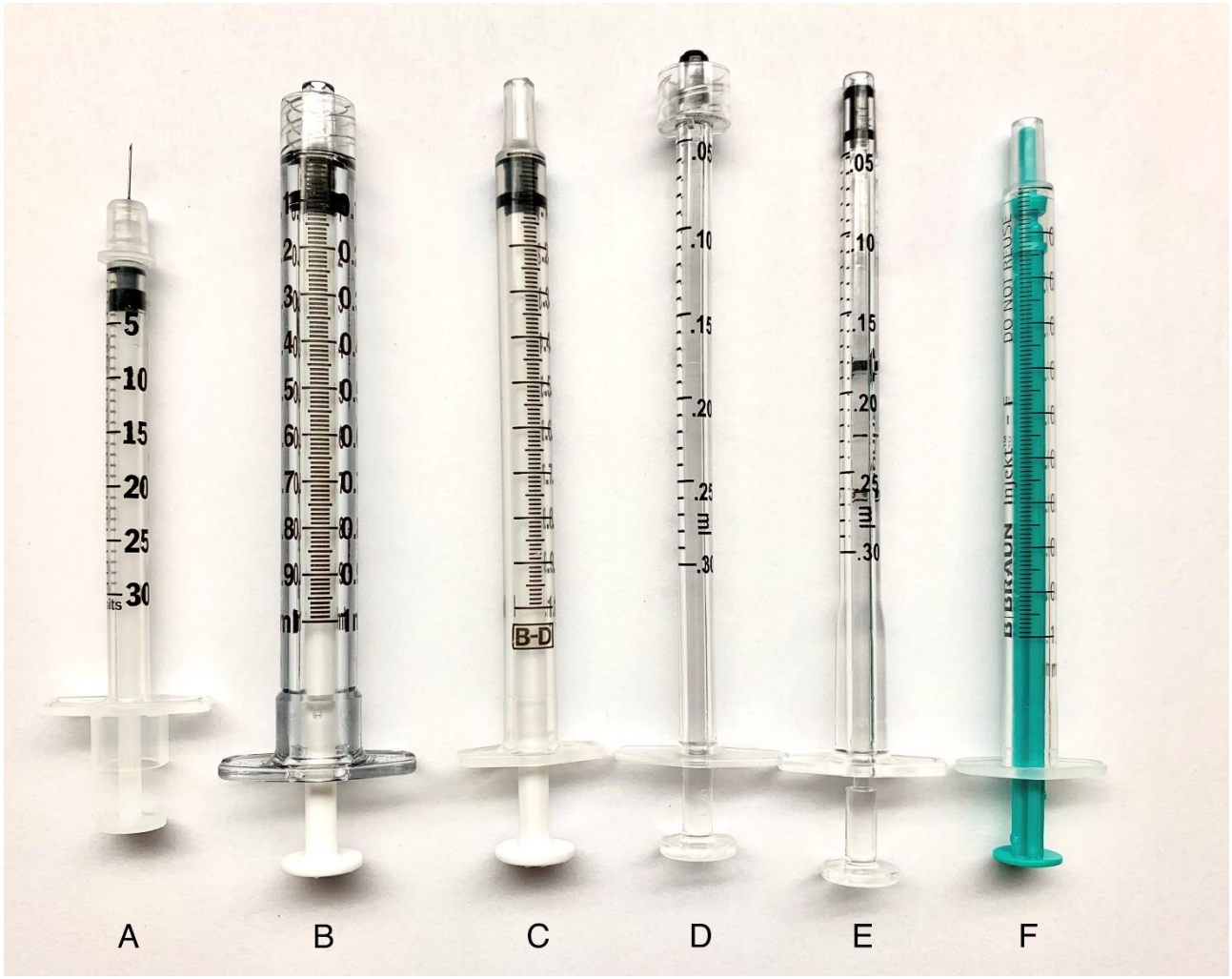
It is paramount that physicians be aware of every step involved in intravitreal injections and consider the roles and implications of all materials and techniques used. The ability to understand the theoretical and practical circumstances may definitely lead to state-of-the-art treatments delivered to patients. This is a review analysis of multiple facets of intravitreal injections, mainly focusing on materials and techniques.

Results:

The most important practical recommendations are: choosing syringes with as little silicone oil as possible, or, preferably, none; avoiding agitation of syringes; awareness that most biologics (e.g., antiangiogenic proteins) are susceptible to changes in molecular properties under some conditions, such as agitation and temperature variation; understanding that improper materials and techniques may lead to complications after intravitreal injections, e.g., inflammation; and recognizing that some devices may contribute to an enhanced, safer, and faster intravitreal injection technique.

Conclusions:

Choosing the most appropriate materials and employing the safest techniques are essential to delivering the best intravitreal injection to our patients.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