Efficacy of 0.38% and 0.18% sodium hyaluronate ocular lubricants for dry eye: A randomized trial in adult gazan participants

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Abstract

Purpose: This study aimed to assess the efficacy of two formulations of lubricant eye drops, containing a gelling agent or not, compared to normal saline. This was a prospective, randomized, double-blinded, three-group, parallel, interventional single-site clinical study. Methods: Forty-five Gazan participants with moderate to severe dry eye disease (DED) were randomized into three groups of 15 participants each. Each group received either normal saline eye drops or lubricant eye drops. For each group, one drop was applied three times a day for six weeks. All participants applied the normal saline solution for the first week. The outcomes assessed were the Arab-ocular surface disease index (Arab-OSDI) scores and clinical tests including tear break-up time test (TBUT), corneal fluorescein staining (CFS), and lissamine green conjunctival staining (LGS) at weeks 1, 3, and 6. Results: Both formulations exhibited a significant improvement in Arab-OSDI scores from visit 2 at

follow-up time points ($p < 0.001$). TBUT, CFS, and LGS showed an improvement in both the SH 0.15% and SH 0.38% groups ($p < 0.05$). SH 0.38% had a greater improvement in the proportion of evaporative dry eye from visit 2 to visit 5 ($p = 0.001$). Conclusion: Lubricant eye drops are beneficial for alleviating the symptoms of dry eye. There was no noticeable difference in the effectiveness of these formulations in relieving symptoms and changing any of the objective signs that were assessed. Improved EDE outcomes occurred with SH 0.38% eye drops, observed between visit 2 and visit 5.

Author keywords

dry eye disease; Gazan participants; interventional single-site clinical study; Lubricant eye drops; SH 0.15%; SH 0.38%

Indexed keywords

MeSH

Adult; Aged; Double-Blind Method; Dry Eye Syndromes; Female; Humans; Hyaluronic Acid; Lubricant Eye Drops; Male; Middle Aged; Middle East; Ophthalmic Solutions; Prospective Studies; Tears; Treatment Outcome

EMTREE drug terms

artificial tear; eye drops; hyaluronic acid

EMTREE medical terms

adult; aged; controlled study; diagnosis; double blind procedure; drug therapy; dry eye syndrome; female; human; lacrimal fluid; male; middle aged; Middle East; physiology; prospective study; randomized controlled trial; treatment outcome

Chemicals and CAS Registry Numbers

Unique identifiers assigned by the Chemical Abstracts Service (CAS) to ensure accurate identification and tracking of chemicals across scientific literature.

hyaluronic acid	31799-91-4, 9004-61-9, 9067-32-7
Hyaluronic Acid	
Lubricant Eye Drops	

Ophthalmic Solutions

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