Answers to Audience Questions - WSPOS World Wide Webinars

WWW 7 – Season 2 – Ocular Surface Disease in Children


Bhupesh Bagga


Dominique Brémond-Gignac


Edoardo Villani


Erin Stahl


Massimiliano Serafino


Vishal Jhanji

Vishal Jhanji (VJ), Bhupesh Bagga (BB), Dominique Brémond-Gignac (DBG), Erin Stahl (ES) & Edoardo Villani (EV)

1. What does the panel mean when they say a short course of steroids for AKC treatment? Please let us know the scheme, i.e. how many times a day? & for how long should the steroids be used?

   DBG: The short course in acute phase could be 6 times per day decreasing to QID, three times per day, BID, once a day, stepwise of 2 or 3 days

   EV: Tapered from QID to QD along the first 6 weeks of therapy with steroid sparing drugs. TID-BID for 1 or 2 weeks when used as rescue therapy during chronic treatment with steroid sparing drugs

2. At what concentration does the panel use Cyclosporine?

   VJ: 0.02%. increase concentration if needed and access to a compounding pharmacy

   BB: 0.05%,0.1%

   DBG: Verkazia (ciclo 0.1%) is available in Europe and in preparation at 2% even if the concentration is different the vehicle in Verkazia provide more efficacy for the dosage

   EV: 0.1% cationic emulsion is the only concentration available on the market in Europe, at the moment. Galenic formulations can be used at concentrations ranging from 0.05% to 1%, depending on disease, clinical features and vehicle (artificial tears vs oil)

3. Does the panel recommend tacrolimus in drops or tablet form?

   VJ: Eye drops if available

   BB: Ointment Tacrolimus 0.03%

   DBG: I use only ointment tacrolimus

   EV: Drops (galenic formulations in Europe)

4. What's the rational of using oral fatty acid supplements in dry eye in children?

   EV: Possible rational include their potential role in improving MGs secretion and in modulating the ocular surface inflammation. However, I feel that we have low evidence of their efficacy and the publication of the results of the DREAM study dampened my enthusiasm.

5. At what dose does the panel use fatty acid supplements?

   EV: At present, fatty acid supplements are not included in my standard therapies.

6. For how long is probing effective in children?

DBG: When probing is successful no need further action

ES: No data to support but anecdotally lasts from 6 months to years

EV: Data seem to suggest that this might be effective for some weeks. Please note that ducts hyperkeratinisation is not a relevant pathogenic mechanism for MGD in children. I suggest limiting probing to very well selected cases.

7. What does the panel feel about using tacrolimus for MGD?

   BB: Cases with persistent inflammation with marginal keratitis need to be treated with Tacrolimus 0.03%

   DBG: I prefer using cyclosporine in case of ocular rosacea

   ES: I only consider tacrolimus when a steroid sparing agent is necessary, I do not use for MGD

   EV: In my opinion, MGD per se is not an indication for using tacrolimus. The role of inflammation in MGD is questionable but, of course, we might have very severe chronic inflammatory diseases of the ocular surface involving MGs and requiring chronic modulation of the (T cells-mediated) inflammation.

8. What steroid ointments can we use for patients with severe eczema on the eyelids; i.e. for patients who do not respond (or not enough) to Protopic?

   DBG: Steroids in short course

   EV: Fluorometholon is my first choice.

9. For how long can we give cyclosporine in children with atopic keratoconjunctivitis? Are there any side effect in long term use?

   DBG: At the date no long term use effect has been noted (it is used since 1985) so it could be for years and if seasonal could be stopped during winter season

   EV: If well tolerated, not less than 1 year. No concerns about systemic side effects. Local side effects are mainly related to tolerability or to increased risk of infections (particularly if the therapy is not able to improve the ocular surface epithelia)

10. Can children (maybe those over 10 years) have dry eye ?

    VJ: Yes

    DBG: Yes, even infants

    ES: Yes

    EV: Yes, the can (even < 10 years). Hyperevaporative DED prevalence is probably underestimated.

11. How does the panel measure tear film?

    VJ: Non-invasive tear break up time

    DBG: NIBUT, But with fluo. and could be done with some medical devices as Lacrydiag & Lipiview

    ES: Schirmer, TBUT

EV: In children, my favourite approach for quantitative measurement of tear film is non-invasive meniscometry (OCT or keratograph). Red phenol test may be a good option. However, particularly in children, qualitative evaluation (e.g. NI-BUT) can provide more relevant info than quantitative test.

12. Is MGD diet related ?

    VJ: Possibly, yes

    DBG: Not mainly, but maybe influenced

    ES: Not enough evidence to support diet change for MGD; suggest healthy, balanced diet for every patient

    EV: Maybe that diet plays a role. However, it's very difficult to obtain MGs improvement modifying the patient's diet.

13. Do Drs. Stahl / Villani use cyclosporine or lifitegrast for these cases?

    DBG: Yes if needed in dry eye in children

    ES: No

    EV: In children, I uses steroid sparing drugs in severe chronic inflammatory diseases, including rare cases of severe hyposecretive DED.

14. Is there a relation between dry eye and electronics and digital screen?

    VJ: Yes, mainly due to infrequent blinking

    DBG: Yes less blink, vergence insufficiency

    ES: May reduce blink rate and worsen dry eye

    EV: Yes, the use of digital devices several hours per day can increase tear film evaporation.

15. What about looking for PEE in children as an indirect measure of dry eye?

    VJ: Yes

    ES: Rare finding in children, if present, look for pathology

16. Does the type of PEE change if the cause is exposure or immune?

    VJ: Exposure-related dry eye is usually along the inferior corneal limbus

17. How often has the panel seen corneal perforation? & what is youngest age?

    BB: Less common , but do see cases with long standing marginal keratitis, youngest seen at the age of 3 years

    DBG: Rare, however awful

    EV: Very rare in European children, in absence of severe congenital diseases. Less rare in children coming from developing Countries. Youngest in my experience: 2 years old.

18. What about demodex? How does the panel treat demodex?

    BB: First to have high suspicion in cases of recurrent blepharitis and conjunctivitis. To diagnose, 2 lashes per lid can be removed and observed under direct. Microscope with glycerol mount. Treatment (a) Tea tree oil 20-50% diluted to be applied twice a day (b) Topical steroids in tapering doses for 2-3 weeks

(c) Baby Shampoo scrub on the lid margin

DBG: Blephasol (Tea Tree Oil)

EV: Demodex may play a role in some inflammatory forms mainly involving the eyelid margin. Topical Terpinen-4-ol is my first line approach.

19. Is FML better than other steroids?

    DBG: No in allergy we need using high steroids action with short course and no long term use

    EV: If the epithelial barrier is preserved, FML may be considered a so called “soft steroid”, effective on the ocular surface but with lower intraocular effects. However, IOP should be carefully monitored in children. Please note that in some cases, you might need more powerful steroids.

20. I find recurrent Chalazia is a sign of MGD in young children. Does the panel find the same thing?

    VJ: Yes

    BB: Yes it is true, also recurrent stye is also seen commonly associated.

    DBG: Yes absolutely sign of MGD and next step with full ocular rosacea

    ES: Yes

    EV: Yes, I agree.

21. Do panel members advise humidifiers at night?

    VJ: Yes

    DBG: Difficult in children better with ointment or hyaluronate gel

    EV: This may be useful, but an healthy young ocular surface, in normal condition, doesn’t need that.

22. What does the panel feel about usage of punctal plugs?

    DBG: Can be used for severe cases of dry eyes as lacrimal gland aplasia or deep lacrimal dysfunction

    EV: To be limited to very selected hyposecretive DED cases. Please note that punctual plugs can increase tear film volume but they decrease tear film clearance.