Introduction

One problem that we encountered in conventional amblyopia patching is drug resistance to the adhesive, such as seen in Figure 2. This condition resolved with the use of occluder lenses. In our patients using occluder lenses, a problem could occur if the child learned to peel out the lens by rubbing the occlusive eye to dissolve the lens, such as seen in Figure 3A. This was corrected by adjusting the lens size. Occluder lenses were successfully fit for our patients as demonstrated by the two children in Figures 3B and 5. More specifically, the median age of our 38 patients was 6 years (range 2mo to 12yr) with the following exception of our results.

Methods

Thirty-eight patients seen between April 1997 and April 1999 were fitted with occluder soft contact lenses. Criteria for inclusion into this study were as follows: amblyopia <10 years of age; and, no past occlution experience. The first lens trial was performed at a minimum of 3mo post-referral. The median age of our patient population was 6 years (range 2mo to 12yr) with the 38 inclusion criteria being most commonly used. BC 8.5, 14.0mm (generally universal for our patient population) or BC 8.7, 14.0mm. All lenses had a 1.45 Noma black apex. The -3.00D power was incorporated into each lens to facilitate handling.

The initial office visit began with parental explanation of what was to happen. Disrupting the occlusive eye and attempting to cover the lens with a piece of adhesive tape is not recommended, as the parent may accidentally remove the lens. The parent was also instructed how to best restrain the child for lens insertion, if necessary. Then, age permitting, the procedure was explained to the child. With the parent watching closely, the lens was inserted. After the child had a lens relative to the lens, the fit was checked to ensure corneal and lens clearance. The child was taught to remove this lens and place it in a contact lens storage case. Following successful insertion of the lens, parental placement began. It usually took several days before lens insertion was successful. One must be patient, however, that each child became less and less cooperative. Once the parent successfully inserted the lens, placement training ended. While the child "recovered" from the session, the parent was taught the use of an occluder lens. In our patients using occluder lenses, a problem could occur if the child learned to peel out the lens by rubbing the occlusive eye to dissolve the lens, such as seen in Figure 3A. This was corrected by adjusting the lens size. Occluder lenses were successfully fit for our patients as demonstrated by the two children in Figures 3B and 5. More specifically, the median age of our 38 patients was 6 years (range 2mo to 12yr) with the following exception of our results.

Results

One problem that we encountered in conventional amblyopia patching is drug resistance to the adhesive, such as seen in Figure 2. This condition resolved with the use of occluder lenses. In our patients using occluder lenses, a problem could occur if the child learned to peel out the lens by rubbing the occlusive eye to dissolve the lens, such as seen in Figure 3A. This was corrected by adjusting the lens size. Occluder lenses were successfully fit for our patients as demonstrated by the two children in Figures 3B and 5. More specifically, the median age of our 38 patients was 6 years (range 2mo to 12yr) with the following exception of our results.

- **Reasons for trying occluder soft contact lenses included:**
  - patching failure 19/38 (50%) cases (age range 2mo - 7yr);
  - social reasons 17/38 (45%) cases (age range 5 - 12yr);
  - anisometropia 15/38 (39%) cases (age range 5mo - 12yr);
  - 4/38 (10%) cases were unsuccessful lens trials (age range 5 - 12yr);
  - 3/38 (8%) cases continue to demonstrate unchanged visual acuity.

- **Conclusions:**
  - Some children remove the patches so frequently that patching is impossible;
  - Others suffer skin irritation from the adhesive patches;
  - Socially conscious school-aged children can be offered better cosmetics.

- **Discussion:**
  - A lens insertion success rate of 89% (34/38 cases) with successful traditional adhesive patching in the remaining 4 patients.
  - Successful vision improvement of one line or more in 26/38 (53%) occluder lens users, requiring a mean successful treatment time of 4 months.
  - No cases of ocular infections in our patients.

- **Summary:**
  - In summary, when traditional patching fails, we would encourage consideration of occluder soft contact lenses in the treatment of amblyopia.

Using Occluder Contact Lenses To Treat Amblyopia

Christie Morse, MD,1,2 Kim McQuaid, COMT,1,2 Luanna Bartholomew, PhD 1
Department of Surgery,1 Section of Ophthalmology,2 Dartmouth-Hitchcock Medical Center, Lebanon, NH

Occluder soft contact lenses can be more successful than traditional patches because:

- Some children remove the patches so frequently that patching is impossible;
- Others suffer skin irritation from the adhesive patches;
- Socially conscious school-aged children can be offered better cosmetics.

Unlike other series,1,2 of patients using occluder soft contact lenses, we have experienced:

- A lens insertion success rate of 89% (34/38 cases) with successful traditional adhesive patching in the remaining 4 patients.
- Successful vision improvement of one line or more in 26/38 (53%) occluder lens users, requiring a mean successful treatment time of 4 months.
- No cases of ocular infections in our patients.

In summary, when traditional patching fails, we would encourage consideration of occluder soft contact lenses in the treatment of amblyopia.