

Neonatal Ocular Prophylaxis Newborn Eye Ointment Is it necessary and effective?

According to medical studies, no. Below you will find studies which prove that the eye ointment routinely applied to newborns does not significantly alter eye infections as opposed to no ointment of any kind. Also, there is evidence that the bacteria which cause these infections are not passed to the infant in the birth canal, but after birth. Also, it has been found that a significant number of infants develop an infection even though they HAVE received the ointment. Read for yourself.

Bell TA, Grayston JT, Krohn MA, Kronmal RA. Randomized trial of silver nitrate, erythromycin, and no eye prophylaxis for the prevention of conjunctivitis among newborns not at risk for gonococcal ophthalmitis. *Pediatrics* 1993 Dec;92(6):755-60. Eye Prophylaxis Study Group. Department of Biostatistics, University of Washington, Seattle 98195. OBJECTIVE. To compare the efficacy of commonly used forms of eye prophylaxis for newborns with no prophylaxis in the prevention of nongonococcal conjunctivitis. The results suggest that parental choice of a prophylaxis agent including no prophylaxis is reasonable for women receiving prenatal care and who are screened for sexually transmitted diseases during pregnancy.

Chen JY. Prophylaxis of ophthalmia neonatorum: comparison of silver nitrate, tetracycline, erythromycin and no prophylaxis. *Pediatr Infect Dis J* 1992 Dec;11(12):1026-30.

The incidence rates of neonatal chlamydial conjunctivitis in the tetracycline, erythromycin, silver nitrate, no prophylaxis and erythromycin twice groups were 1.3, 1.5, 1.7, 1.6 and 1.4%, respectively. We conclude that neonatal ocular prophylaxis with erythromycin (one or two doses) or tetracycline or silver nitrate does not significantly reduce the incidence of neonatal chlamydial conjunctivitis compared with that in those given no prophylaxis.

Krohn MA, Hillier SL, Bell TA, Kronmal RA, Grayston JT. The bacterial etiology of conjunctivitis in early infancy. *Am J Epidemiol* 1993 Sep 1;138(5):326-32.

The findings concerning the species of bacteria most often associated with conjunctivitis, as well as the finding that method of delivery is unimportant, suggest that bacteria were transmitted to the infants' eyes after birth and not from the birth canal.

Black-Payne C, Bocchini JA Jr, Cedotal C. Failure of erythromycin ointment for postnatal ocular prophylaxis of chlamydial conjunctivitis. *Pediatr Infect Dis J* 1989 Aug;8(8):491-5.

The conclusion was that a substantial percentage of infants exposed to Chlamydia develop chlamydial conjunctivitis despite receiving erythromycin ocular prophylaxis.

I feel inclined to ask, if the infants are contracting the bacteria after birth and not in the birth canal, where is it coming from? In the hospital, bacteria is rampant, and even the chemical sterilizing agents used to clean hospitals have been shown to be ineffective in totally wiping out bacteria. It is hard for me to believe that it was introduced to the infants by the mothers after birth; the baby makes it through the birth canal, with the mother's bodily fluids smeared all over it, and still comes out without an infection, only to be introduced to it from normal handling by the mother? I don't think so. I can only conclude it was introduced by the handling of hospital personnel.

Another good reason for home birth, where your baby is already immune to the germs in the environment it is born into.

From <http://gentlebirth.org/archives/eyeointm.html> - Midwives and moms post their thoughts.

Historical Perspective on Eye Infections

I couldn't find numbers, but all authors agree that it used to be a primary cause of blindness. From 1965 Universal Home Doctor:

"gonorrhoea It has been calculated that this disease accounted for one third to one half of all the persons in blind asylums, so destructive of sight it is; but now that it is more vigorously dealt with and is notifiable by doctors and midwives its incidence has been kept down. [This was written in 1930.]"

It was a very obvious infection and very difficult to treat.

Delee's Obstetrics for Nurses (1937 edition):

"[gonorrhoea] quickly sets up a violent inflammation of the conjunctiva. at first the lids grow red , then there is a thin, irritating discharge, with yellowish flakes. After a few hours this becomes purulent and th lids become so swollen that the eyes are closed. Unless active and constant treatment is instituted, the inflammation gains headway, the cornea may ulcerate, leaving ugly scars which shut out the light, or the lens may escape and the whole eye be destroyed. A large part of the blindness in the world is caused by this dreadful affliction, and it is primarily venereal in origin. pg 496-497"

There is a HORRIBLE picture of a baby with the disease-eyes-really the entire upper face-swollen and distorted, red, oozing yellow pus. Believe me, it looks nothing like any conjunctivitis I have ever seen. I can't imagine anyone not noticing it, or ignoring it.

The treatment in those days consisted of frequent "irrigations" with warm saline and/or applications of ice packs made of sterile saline poured over sterile ice cubes. The nurse applies these "ice-cold pledgets (cotton balls) on the lids, changing them every minute, and throwing the waste into a paper bag at the side. The order may be to keep up the application of cold for twenty-four hours and not to interrupt it while the child is nursing." And days and weeks of constant care were required to fight the infection, prevent eye damage and attempt to prevent its spread to the family and caregivers.

It's really very sad to see the pictures in this book.

Contrast this treatment with a later book- Handbook of Pediatrics (1975: post-penicillin)- "The prognosis with treatment is generally very good, and cure should result within two to four days."

I frequently send up a prayer of thanks for the discovery of antibiotics.

The whole notion of gonorrhoea causing blindness in this day and age is ridiculous. GC in a newborns eyes is supposed to cause an outrageously awful infection. They go blind from abscesses and ulcerations - not a silent destructive subclinical infection. Nobody would miss it. It's like other pathological conjunctivitis's: if the eye is extremely purulent, swollen, and red they need antibiotics. Even if the babe developed the beginning of a GC positive eye infection the treatment would still prevent blindness. Nobody would be home with a lavender and saline compresses, mistaking it for a plugged duct. I saw a film once of the treatment before antibiotics, when all they could do was irrigate the eyes with who knows what. I was impressed.

Though the erythromycin doesn't burn, it is an antibiotic which I suspect will enter the bloodstream through the eye, thus it is my assumption that the potential for candida diaper rash, thrush, digestive problems and antibiotic resistance are raised when eye prophylaxis is administered.

I don't know about those problems, but I have noticed that we tend to see more sticky eyes in babies who have had the erythromycin. My thought on that one is that there is likely some kind of local irritant reaction to the ointment, which causes swelling of the tear ducts and blockage. With improper drainage, a breeding site for bacteria develops and, voila, a sticky eye (almost always just one, we've noticed).

Would be good to see a clinical trial on this. I think mandatory eye prophylaxis is a stupid notion, frankly. For all the reasons cited, thus far.