



Aula apresentada pelo Dr Roberto Pinto Coelho nos EUA(Chicago) em abril de 2012 no Congresso de catarata e Cirurgia Refrativa(ASCRS) sobre cirurgia de catarata

Resumo da aula

Viral Contamination During Sequential Phacoemulsification Surgeries

Meeting:

[ASCRS 2012](#)

Date/Time:

April 23, 2012 3:12pm - 3:17pm

Speaker:

[Roberto P Coelho, MD, PhD](#)

Clinical Topic:

Intraocular Surgery (Cataract and Refractive)

Media Type:

Papers

Purpose:

This study aims to determine the incidence of contamination with the virus Piry among surgical instruments used with disposable phaco accessories for phacoemulsification during sequential surgeries.

Method:

An experimental model was carried out with 4 pigs' eyes that were contaminated through a corneoscleral incision with Piry virus and 4 pigs' eyes without contamination. After the pig eyes were infected, cataract surgery was performed by phacoemulsification alternating from a contaminated eye to a non-contaminated eye. From one surgery to another, the operating fields, gloves, scalpel (2.5 mm), tweezers, needles, syringes, tips and bag collector from the phacoemulsification machine were exchanged; only the handpiece and irrigation and aspiration systems were maintained.

Results:

All the contaminated eyes had positive outcomes, and all non-contaminated eyes had negative outcomes. In the collector bag, three samples from contaminated eyes (3 / 4) were positive, and two samples from non-contaminated (2 / 4) eyes were also positive; at the tip, one sample from contaminated eyes (1 / 4) and two samples of non-contaminated eyes (2 / 4) yielded positive results. In the irrigation system, one sample from a non-contaminated eye (1 / 4) was positive, and in the aspiration system, two samples from contaminated eyes (2 / 4) and two samples from non-contaminated eyes (2 / 4) were positive. In the gloves, samples were positive in two non-contaminated eyes (2 / 4) and two samples from contaminated eyes (2 / 4). In the scalpel samples, three contaminated eyes (3 / 4) and none of the non-contaminated eyes (0 / 4) were positive; finally, two samples from the anterior chamber of the non-contaminated eyes gathered after surgery were positive.

Conclusion:

It was possible to detect the presence of viral genetic material at all investigated levels, demonstrating that all components of the phacoemulsification machine were contaminated after the cataract surgery in an eye contaminated with the Piry virus. Moreover, in two non-contaminated eyes, the presence of genetic material was detected after the phacoemulsification surgery, demonstrating that the transmission of genetic material of the virus Piry occurred at some point during the surgery for these non-contaminated eyes when the handpiece and irrigation and aspiration systems were reused between surgeries.