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Incidence of pseudophakia cystoid macular edema with and without subconjunctival injection of dexamethasone during cataract surgery

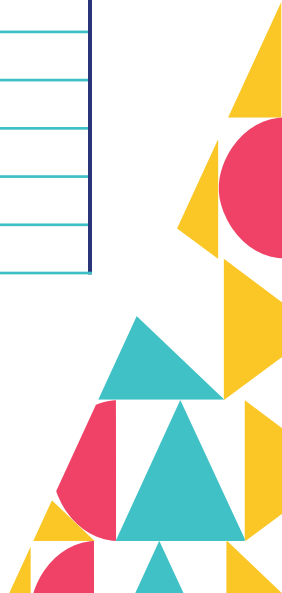
Gilles Lesieur, MD
Paul Dupeyre, MSc

Disclosure for Gilles Lesieur

In compliance with COI policy, ESCRS requires the following disclosures to the session audience:

Shareholder	No relevant conflicts of interest to declare.
Grant / Research Support	No relevant conflicts of interest to declare.
Consultant	Carl Zeiss Meditec
Employee	No relevant conflicts of interest to declare.
Paid Instructor	No relevant conflicts of interest to declare.
Speaker Bureau	No relevant conflicts of interest to declare.
Other	Royalties for BVI and Rumex instrumentation

Paul Dupeyre has no financial interest in any of the mentioned products or methods



Purpose & Methods

To study the **incidence of PCME with and without** systematic injection of subconjunctival dexamethasone (DEX) during cataract surgery

Retrospective analysis of eyes who had undergone phacoemulsification between 2013 and 2020 by one surgeon, **using the same operating protocol**

Two groups were defined :

The control group consisted of eyes operated before 06/12/2018 without DEX injection

The test group consisted of eyes operated after this date and with systematic intraoperative injection of DEX 4mg 0.50mL

A complementary analysis on patient with **preoperative epiretinal membrane (ERM)** was done



Results: PCME rate

After exclusion criteria (corneal or retinal abnormalities), **no significance was found** between both groups

	NO PCME group n (%)	PCME group n (%)	Total (n)
Before DEX (control group)	3660 (98.73%)	47 (1.27%)	3707
After DEX (test group)	890 (98.78%)	11 (1.22%)	901

DEX: Dexamethasone

PCME: Pseudophakia cystoid macular edema

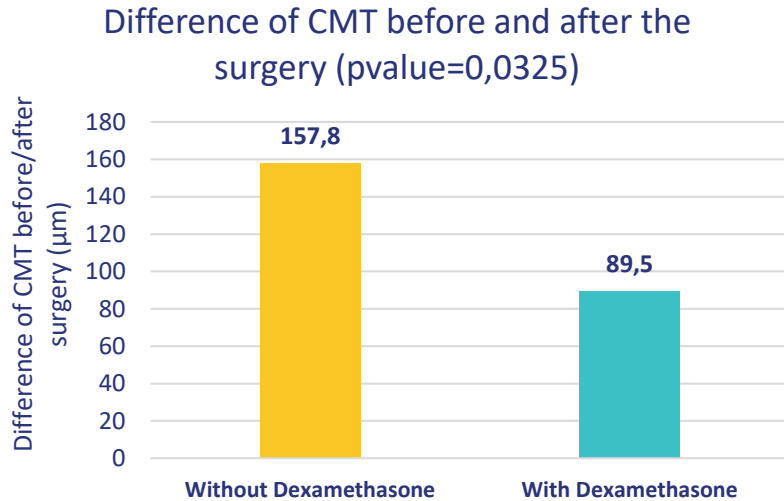
Injection of subconjunctival DEX does not appear to reduce PCME rate in **uncomplicated eyes**

However, the analysis on patient with a **preoperative ERM** showed significant reduction of PCME rate if an injection of dexamethasone was done (**0.00%**) vs not done (**28%**), **p<0.01**



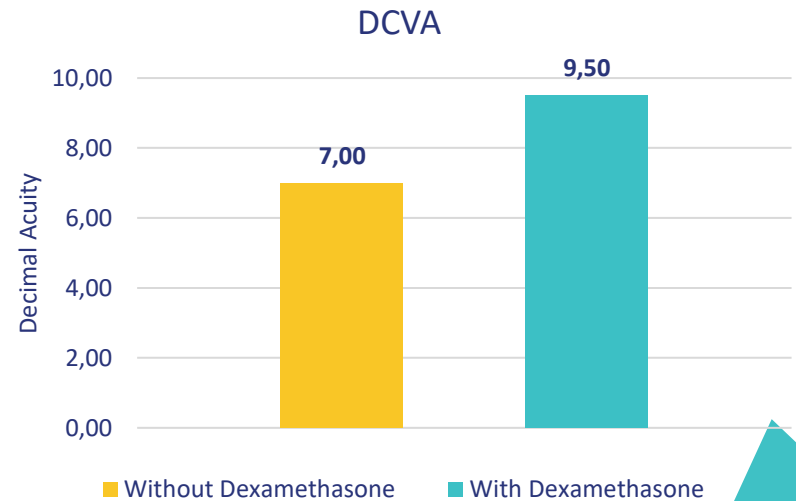
Results: Central Macular thickness and DCVA

Central Macular Thickness (CMT)



Mean change of CMT in eyes diagnosed with PCME was significantly lower in the test group: $89.5 \pm 75.7 \mu\text{m}$ versus $157.8 \pm 112.1 \mu\text{m}$ in the control group, $p=0.032$

Distance Corrected Visual Acuity (DCVA)



Conclusion

To our knowledge, this is the first report to show the effect of **subconjunctival injection of DEX during cataract surgery** on the incidence of PCME

Although DEX did not reduce the incidence of PCME **in uncomplicated eyes**

It reduced the **severity of the edema (CMT) and the impact on visual acuity (DCVA)**

In addition, subconjunctival injection of DEX appears to be effective in reducing the incidence of PCME in the eyes with **preoperative ERM**

