

# Dacron mesh may prevent rejection of gold

**Pippa Wysong  
in Vancouver**

THE use of Dacron mesh may improve retention and appearance during replacement of gold weights in the eyelid for patients with facial nerve palsy, but concerns remain about long-term inflammation, according to Dan DeAngelis MD, Mount Sinai Hospital, Toronto, Ontario, Canada.

In a presentation at the annual meeting of the Canadian Ophthalmological Society, Dr DeAngelis described the outcome of three patients who underwent implant replacements with Dacron mesh used in an effort to stop the implant from migrating.

Dacron mesh is a polyester polymer (polyethylene terephthalate) that has been used for various medical applications for more than 50 years. Uses range from implantable sutures, vascular grafts and as a surgical mesh used for patching and repairs.

"It's the strongest suture manufactured. We often see it in different forms and it does maintain a threshold integrity over time," Dr DeAngelis said.

The material is inert, and the mesh is porous allowing for tissue in-growth and greater stabilisation. All these features pointed to something worth trying in terms of minimising recurrent extrusions of implanted gold weights in eyelids.

Dr DeAngelis and colleagues from the University of California San Francisco conducted a prospective study with three patients to evaluate the effectiveness of Dacron mesh for this purpose. The patients were all referred with a failed primary gold

eyelid implantation and an extrusion. The extruding weights were removed, and then the eyelids were allowed to heal for about six weeks before re-implantation was attempted.

"After the initial gold weight removal, we did a lid crease incision and the gold weight was placed over the tarsus," he explained.

A piece of Dacron mesh was cut to shape. Fixation was done by suturing the mesh to a hole in the gold weight.

Outcome measures were retention of the implant, its position, stability, the aesthetic appearance of the lid and patient satisfaction. Follow-up was for at least two years.

The patients presented with primary gold weight extrusions. After re-implantation with the mesh, they initially all had excellent results and the weights were stable. But at four to 30 months post-operatively, problems developed and two of the three patients had to have gold weight removal, Dr DeAngelis reported.

In one patient, the gold weight was centred and stable at 18 months.

"Unfortunately he presented 2.5 years after the initial insertion with a sudden erosion of the gold weight through the Dacron mesh in the skin. He gave no antecedent history of trauma or any other injuries," Dr. DeAngelis said.

The weight was removed, and signs of an inflammatory response were seen in the tissue.

The second patient developed oedema and erythema at three months, though there was no sign of infection. Steroid injections were tried to reduce the inflammation, but eventually the gold

weight had to be removed.

As for the third patient, at three years out, the gold weight was still centred and stable with no signs of inflammation. The skin is well healed and the patient is satisfied with the result, he said.

Initially the researchers thought the Dacron mesh alone would be enough to stabilise gold implants, but the inflammatory response seen in the two patients was worrisome.

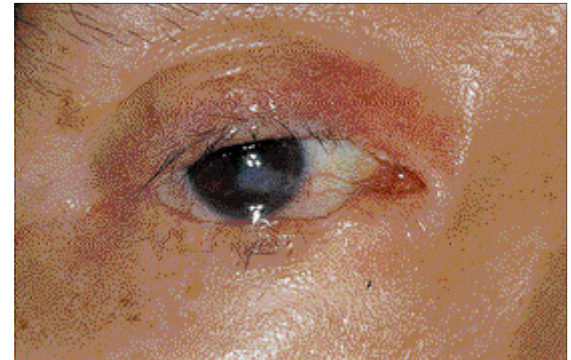
"Overall, I think initially it's a reasonable material to use, but over a long period of time, or at least in our follow-up of two and a half to three years, two of the three patients did have to have it removed," he said.

He believes that studies need to be done of larger series of patients, in order to find out whether the delayed inflammatory reaction is common and whether it can be prevented.

[dandangelis@hotmail.com](mailto:dandangelis@hotmail.com)



*Intraoperative photo of dacron mesh overlying a re-implanted gold weight that had extruded*



*Postoperative photo showing a well-healed wound with no evidence of infection or inflammation.*

*courtesy of Dan DeAngelis MD*