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Sir, Comment on 'Gas tamponade combined with laser photocoagulation therapy for congenital optic disc pit maculopathy'

We read with interest the article 'Gas tamponade combined with laser photocoagulation therapy for congenital optic disc pit maculopathy'. The study shows that combination therapy is a simple, effective, minimally invasive, and an economic alternative to vitreous surgery in management of optic disc pit maculopathy.

With the purpose of blocking inflow of fluid from optic pit to retinal layers, the laser-induced scar should extend from middle retinal layers to retinal pigment epithelium without damaging retinal nerve fiber layer.² We have earlier reported the optical coherence tomography characteristics of optic pit maculopathy and had proposed the anatomical pathophysiology of fluid conduit from pit to macula. We showed that involvement of outer retinal layers is the first step in optic pit maculopathy, and from this layer, there could be bidirectional seepage: directly into subretinal space, through inner retinal schisis into subretinal space, or just into inner retinal layers, no involvement of subretinal space.³ Thus, it is prudent to establish adhesion between outer layers and RPE, creating inner layer adhesion is not required to stop the fluid movement. Diode laser having infrared wavelength can provide better adhesion between outer retina and RPE choroid at optic disc border in such scenario with minimal damage to nerve fiber layer in juxtapapillary area.

As the extent of detachment is confined to macular area, the rationale for extending laser treatment along superior and inferior margins of detached retina in the study is not clear. The laser treatment is usually performed placing 2–5 confluent rows in juxtapapillary area in circumferential extent.

As repeat treatment with gas tamponade and laser was required in 5 out of 9 eyes in the study, presence or absence of vitreous strands or glial tissue in optic pit on OCT scans would have been informative as these morphological patterns on OCT do better with surgical intervention along with peeling of such fibrous tissue.⁴

The study described the use of 66% C3F8 gas injection for tamponade, whereas previous reports have shown utilization of expansile pure gases in optic disc maculopathy.⁵ It is not clear how this mixture has any added benefit in optic disc maculopathy.

Conflict of interest

The authors declare no conflict of interest.

References

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Sir, Response to: 'Comment on Gas tamponade combined with laser photocoagulation therapy for congenital optic disc pit maculopathy'

We thank Dr Raman and Dr Delhiwala for their comments and suggestion.

We noticed that the optical coherence tomography (OCT) characteristics of optic pit maculopathy can be decided into two to three categories. As the anatomical pathophysiology of the fluid is not clear, regardless of the underlying pathophysiology, sub-retinal fluid appears to gain access to the macula via the anomalous optic pit. Thus, we did the same laser treatment at the optic disc border with the purpose of blocking inflow of fluid from optic pit to retinal layers. We agree with the authors' idea about the OCT characteristics of optic disc pit maculopathy (ODP-M) and actually we intend to analyse the relationship between different treatment to ODP-M and the OCT characteristics of it.

The laser treatment was right done in juxtapapillary area in circumferential extent by placing 2–4 confluent rows with the purpose of blocking the inflow of fluid. Furthermore, we did the laser along superior and inferior margins of detached retina to help with the adhesion of the detached retina and the region of it was decided by the detached area.

We intend to present minimally invasive surgery in ODP-M patients, thus we do not want to do PPV procedure in the treatment. That is why we did not present too much information on the OCT of vitreous and some repeated treatment was needed. But it is a good suggestion to take it into consideration.

As for the concentration of the gas tamponade, 66% C3F8 gas injection will not be absorbed too quickly and in the meantime will not induce expansion too much. Otherwise, the vitreous of the young patients will be condensed and constricted. However, it is better to do the comparison of the different concentration of the gas as long enough patients were provided. We will go