

# Painful Phantom Eye

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**ABSTRACT:** During a period of one year and three months, I examined a total of 56 patients with empty orbits to assess the incidence of painful phantom eye after the loss of a globe, and to study the effectiveness of appropriate preoperative explanation and early postoperative fitting of an ocular prosthesis in the prophylaxis and treatment of this unusual and vexing condition. The patients were divided into two groups: Group 1 included 44 patients who had their eyeballs removed elsewhere, and Group 2 comprised of 12 patients who underwent enucleation or evisceration at our institution. Our patients had surgery for panophthalmitis, nine patients; crushed globe, one patient; retinoblastoma, one patient; and expulsive hemorrhage, one patient. Nine of these patients had evisceration and three had enucleation. Two out of 44 patients in Group 1 had symptoms of a painful phantom eye and responded well to proper fitting of a prosthesis and reassurance. None of the patients in Group 2 developed painful phantom eye, placing the overall rate of occurrence of a phantom eye at 3.6% in patients with a surgical loss of the globe. (Pakistan Journal of Ophthalmology 10:77-78, October, 1994.)

The perception by the patient of a painful "phantom" organ following the loss of a limb, a leg, a breast, or penis has been recorded and is a well-recognized entity in surgical practice.<sup>1</sup> However, the phenomenon of "phantom eye" is an unusual and rare occurrence following an enucleation of an eye. There are not many reports on it in the literature. In 1982, Awan<sup>2</sup> described a case of a 70-year-old woman who developed this rare complication after the removal of her left eye that had developed intractable pain and glaucoma following central retinal vein occlusion. The eye was excised by the technique of intrascleral enucleation as devised and published by Awan.<sup>3</sup> In his article he also referred to another report of "phantom vision" by Cohn.<sup>4</sup>

After having recognized the painful phantom eye for the first time, I decided to conduct a study to assess the incidence of this peculiar and vexing complication among the enucleation patients in Pakistan. To my knowledge, this is the first study of its kind.

## Materials and Methods

A total of 56 patients who had undergone surgical removal of a globe were included in this study, which extended over a period of one year and three months, from March 1992 to June 1993. These patients were divided into two groups.

The patients (44) who had undergone enucleation or evisceration elsewhere and were first seen by us with an empty socket were placed in Group 1. The patients (12) who had enucleation or evisceration at our institution were placed in Group 2. The patients with congenital anophthalmia or phthisis bulbi who did not have enucleation were not included. A careful and strictly non-suggestive questioning of these patients and their responses was the basis of our conclusions.

The treatment schedule adopted for the patients with painful phantom eye comprised of proper fitting of ocular prosthesis and meticulous and thoughtful reassurance. To observe the true effect of these measures, analgesics, antibiotics and tranquilizers were not employed in treating any of the patients.

## Results

Two out of 44 patients in Group 1 presented with painful phantom eye. These patients were anxious by temperament and were not satisfied with the previously prescribed tranquilizers and analgesics. They were provided with ocular prosthesis and enough time was spared for their reassurance. They responded well, and did not complain of the same symptom during the follow-up period.

None of the patients in Group 2 developed painful phantom eye. History of panophthalmitis was present in 21 out of 44 cases in Group 1. Remaining 23 patients did not come up with a conclusive history of the cause of the globe removal. In Group 2, nine patients with panophthalmitis underwent evisceration. Enucleation was done in a child with retinoblastoma

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which was confirmed histopathologically. Orbital implant was placed in the muscle cone of the empty socket to prevent the threatening complication of contracted socket, as is recommended by many authors.<sup>5,6</sup> One patient with crushed globe underwent enucleation in an attempt to prevent sympathetic ophthalmitis in the other eye. Table 1 gives causes for the removal of globe in both groups.

**Table 1**  
**Reasons for globe removal**  
**(56 cases)**

Reason	Group 1	Group 2
Panophthalmitis	21	9
Retinoblastoma	-	1
Crushed globe	-	1
Expulsive hemorrhage	-	1
Unknown	23	-
Total	44	12

**Discussion**

Pain is a complex neural and psychological feeling, and not simply a sensory happening. This fact is well explained by the painful phantom sensation arising from parts of the body which no longer exist. Another important observation is that an individual with congenital absence of a limb has no phantom sensation,<sup>1</sup> indicating that the neural organization of conscious awareness of one's own body scheme requires a period of learning after birth. The incidence of phantom limb and pain is variable according to different reports, and perhaps even for different parts of the body as well. For instance, for its incidence is reported to vary from 5 to 30 per cent in amputation of the lower extremity.<sup>7</sup> The psychological makeup of the patient and the circumstances under which the loss of limb took place are perhaps also important factors. In a retrospective random survey of 5,000 war veterans with amputation of the lower extremity, 85 per cent had significant phantom symptoms, an astounding figure indeed. The authors felt that the lower incidence of these findings in other studies is due to the fact that in order to protect their credibility and relationship with their physicians, the patients simply stop complaining.<sup>7</sup> It is possible that similar reasons are behind the extreme rarity of the phantom eye. Awan<sup>2</sup> reports that Cohn's patients "never spontaneously spoke of their phantom eye."

In our patients, after globe removal, the phantom image seemed fixed in the patients' awareness. These patients develop pain in the phantom eye which may be unbearable and in many instance refractory to all therapy, obviating all the benefits of the surgical intervention. Awan<sup>2</sup> thus describes his frustration: "The delight the patient expressed after seeing the good

cosmetic results of the operation was ruined when she began having an awareness that the eye was still there. Feeling the pressure of the globe, she said, was not as much a problem as her perception of the blind field of the excised eye. She complained that, although she knew the eyeball was not there, she still felt that the blind field was present and she said it interfered with her ability to see with her good eye. It has been almost a year and a half since the enucleation, but she continues to express her complaints. Every effort on my behalf has failed to alleviate the bizarre phenomenon. Fortunately, phantom eye is a rare phenomenon; I have found no references to it in the ophthalmic literature."

The phantom pain appears to have a central origin, with a great relation to patient's psyche. Physicians treating these patients with conventional pain killers turn helpless and usually rapport between the patient and his physician is lost. To solve this problem, the patient must be forewarned about the possible postoperative occurrence of painful phantom eye. In some cases, simple but thoughtful and attentive explanation is all that is required. In others, provision of a cosmetically matching prosthesis may do the trick.

Pain is a protective mechanism for the body, it is triggered in the body tissues and perceived in the thalamus. Phantom eye pain on the other hand is a paradox which serves no protective function. In present series this problem was dealt with an acceptable measure of success by giving careful preoperative explanation and by providing a good postoperative ocular prosthesis.

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