Posterior Ischaemic Optic Neuropathy Following Vaginal Delivery

Corresponding Author:
Dr. Karandeep Rishi,
Consultant, Ophthalmology, Sai Ram Charitable Eye Hospital, Kurukshta, 136118 - India

Submitting Author:
Dr. Karandeep Rishi,
Consultant, Ophthalmology Sai Ram Charitable eye instititute, Kurukshta, 136118 - India

Article ID: WMC003307
Article Type: Case Report
Submitted on: 26-Apr-2012, 05:46:16 PM GMT  Published on: 27-Apr-2012, 05:48:34 PM GMT
Article URL: http://www.webmedcentral.com/article_view/3307
Subject Categories: OPHTHALMOLOGY
Keywords: Posterior ischemic optic neuropathy, Post-partum haemorrhage, Permanent vision loss
How to cite the article: Rishi K, Puri M. Posterior Ischaemic Optic Neuropathy Following Vaginal Delivery. WebmedCentral OPHTHALMOLOGY 2012;3(4):WMC003307
Copyright: This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.
Source(s) of Funding: nil
Competing Interests: nil
Posterior Ischaemic Optic Neuropathy Following Vaginal Delivery

Author(s): Rishi K, Puri M

Abstract

Sudden hypotension complicated with anaemia can lead to acute bilateral simultaneous posterior ischaemic optic neuropathy (PION). Such cases have been described in the perioperative period; however PION developing after normal vaginal delivery is a very rare occurrence. We report a case of 32 years old para 3 who presented to us on the second post-partum day after a normal vaginal delivery with bilateral vision loss and had no visual recovery even 8 weeks post-partum.

Introduction

Ischemic optic neuropathy is a rare complication of massive haemorrhage. Of the reported cases of post haemorrhagic amaurosis, approximately 30% are the result of uterine haemorrhage. The pathogenesis of ischemic optic neuropathy is unclear. Severe anaemia, with or without arterial hypotension that may result in optic nerve hypoxia or ischemia is the proposed mechanism (1) We report a rare case of posterior ischaemic optic neuropathy that occurred on the second post-partum day. She had residual visual loss even after 8 weeks post-partum.

Case Report(s)

A 32 years old para 3 presented to our emergency department with history of sudden, painless loss of vision since 2 days. She had a full term vaginal delivery at a peripheral hospital 4 days back complicated with atonic post-partum haemorrhage managed with uterotonicics and 3 blood transfusions. At the time of presentation vision was perception of light in both eyes with inaccurate projection of rays. Her BP was 116/68 mm of Hg and pulse was 90/min. Anterior segment examination was normal. Both pupil were mid-dilated with sluggish reaction to light. Fundus examination revealed no abnormal findings. There was no focal neurological deficit and her higher mental functions were normal. MRI brain and orbit did not reveal any abnormality. Visual evoked potential were carried out in both the eyes which revealed bilateral increased latency. Fundus fluorescence angiography was within normal limits and did not show any area of non-perfusion in the retina. OCT was within normal limits bilaterally. Haemoglobin was 8gm%.

A provisional diagnosis of Posterior ischemic optic neuropathy was made. Patient was given 3 day course of pulse methylprednisolone 1g/day to reverse any neurological injury. On day seven vision improved to 5/200 snellen visual acuity in both eyes and remained the same at 4 week follow up. Fundus examination at 4 week revealed mild disc pallor which increased at 8 week follow up.

Discussion

The proposed pathogenesis of PION is sudden hypotension leading to ischaemic hypoxia to the posterior optic nerve. Other possible mechanisms include release of circulating vasoconstrictors (i.e., angiotensin, epinephrine, and vasopressin) as a result of activation of the sympathetic nervous system, resulting in vasoconstriction and optic nerve ischemia, Buono et al (2) described the diagnostic criteria for PION which includes (1) an acute decrease in visual acuity, visual field, or both; (2) an ipsilateral relative afferent pupillary defect, unless there is bilateral symmetrical involvement or a pre-existing contralateral optic neuropathy when the pupils are sluggish or nonreactive to light (3) documentation of a normal optic disc at the onset of visual deficit; (4) exclusion of other identifiable causes of visual deficit, including retinal and glaucomatous problems, and other causes of optic neuropathy, such as compression, demyelination, or inflammation with neuroimaging; (5) an abnormal VEP. (6) a normal ERG. (7) development of optic disc pallor within 4 – 8 weeks of onset of visual loss.

Chun and Levin (3) described a similar case of PION that occurred after massive haemorrhage of ruptured ectopic gestation and left the patient with permanent vision loss.

We thus describe an unusual case of PION that occurred after post-partum haemorrhage and led to permanent visual impairment.
Bibliography

Disclaimer

This article has been downloaded from WebmedCentral. With our unique author driven post publication peer review, contents posted on this web portal do not undergo any prepublication peer or editorial review. It is completely the responsibility of the authors to ensure not only scientific and ethical standards of the manuscript but also its grammatical accuracy. Authors must ensure that they obtain all the necessary permissions before submitting any information that requires obtaining a consent or approval from a third party. Authors should also ensure not to submit any information which they do not have the copyright of or of which they have transferred the copyrights to a third party.

Contents on WebmedCentral are purely for biomedical researchers and scientists. They are not meant to cater to the needs of an individual patient. The web portal or any content(s) therein is neither designed to support, nor replace, the relationship that exists between a patient/site visitor and his/her physician. Your use of the WebmedCentral site and its contents is entirely at your own risk. We do not take any responsibility for any harm that you may suffer or inflict on a third person by following the contents of this website.