

Anisocoria: Realities, Recognition, and Remedial Aspects

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ABSTRACT

The realities, recognition, and remedial aspects of anisocoria at the bedside were highlighted by Adhikari et al.,¹ which is almost similar to an earlier report from India.² Since this condition involves patient safety and clinical assessment, we would like to touch upon 3 Ps (physiological, pathological, and pharmacological) of anisocoria. First and foremost is to elicit a thorough clinical history and then to assess the case in detail which not only rules out injuries, infections, instillation, or ingestion of medicines and instigating mechanisms but also helps rule out various other life-threatening conditions.

Keywords: Nebulization, Nebulizer, Palsy.

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Sir,

The realities, recognition, and remedial aspects of anisocoria at the bedside were highlighted by Adhikari et al.,¹ which is almost similar to an earlier report from India.² Since this condition involves patient safety and clinical assessment, we would like to touch upon 3 Ps (physiological, pathological, and pharmacological) of anisocoria.

First and foremost is to elicit a thorough clinical history and then to assess the case in detail which not only rules out injuries, infections, instillation, or ingestion of medicines and instigating mechanisms but also helps rule out various other life-threatening conditions. Also, look for pupillary response to near focus, eyelid position, and eye movements, which brings out third nerve involvement and stresses on the need to review the cases in detail. One has to consider the pathological and pharmacological causes of anisocoria at the bedside before embarking any statement and/or giving assurances to the patients and/or care givers.

Pharmacologically, pilocarpine causes constriction of normal pupil; however, in a patient presenting with dilated pupil and a history of chronic topical sympathomimetic use, the pharmacologic testing with pilocarpine can complicate the diagnosis. This is because it has no direct antagonistic effect since it is not a sympatholytic drug. Moreover, in botulinum toxin poisoning, administration of 1% pilocarpine does constrict a toxic-dilated pupil because presynaptic inhibition of acetylcholine release by the neurotoxin. Prominent anisocoria in dark indicates underlying pathology in the small pupil due to disease-affecting sympathetic system.³ Though pilocarpine test helps differentiate anisocoria prominent in bright light, apraclonidine test⁴ is suggested for prominent anisocoria in dim illumination.

Thus to summarize, one has to examine the eye in detail including pupils especially if confronted with anisocoria, and to check for pupillary status in dim light and bright illumination⁵ so as to elicit and interpret the physiological response, recognize the pathological conditions, and intervene with appropriate pharmacological agents or other remedial measures. The old adage “simple solutions for complex problems” holds good with anisocoria.

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