



## Acute Anisocoria in a Myasthenic Patient

### *Miyastenik Hastada Akut Gelişen Anizokori*

Neşe Dericioğlu, Tülay Kansu  
Hacettepe University Faculty of Medicine, Department of Neurology, Ankara, Turkey

#### Case

A 31 year old female patient was admitted for plasmapheresis treatment due to myasthenic crisis. Her labored breathing became more severe during the third day of her stay and also due to the history of asthma in her medical history, she was started on salbutamol sulfate and ipratropium bromide inhalation with face mask. She developed blurry vision after 2 days and her left pupil was found to be mydriatic (Figure 1A). Light and proximity reflexes could not be obtained. The excitement caused by dilated and fixated pupil subdued after discovering that the inhalation mask was not fitted properly on her face and leaks around her left eye. After fixing the leak, the anisocoria disappeared completely by the next morning (Figure 1B).

Even though it was previously reported that a poorly fitted facial mask can cause anisocoria, this finding has not yet been reported in the neurology literature (1,2,3,4). Since bronchodilator administration with facial mask is common in the neurological cases, a poorly fitted mask can cause unilateral or bilateral mydriasis and acute glaucoma because of the leakage of the drugs containing sympathomimetic agents. Before resulting to emergency neuroimaging methods, this possibility should be ruled out.



**Figure 1A.** Mydriasis in the left eye. Light and proximity reaction is not observed.



**Figure 1B.** Improvement in the anisocoria at the 48th hour after the cessation of the inhalation treatment.

**Address for Correspondence/Yazışma Adresi:** Neşe Dericioğlu MD, Hacettepe Üniversitesi Tıp Fakültesi, Nöroloji Anabilim Dalı, Ankara, Türkiye  
Phone.: +90 312 305 18 06 E-mail:nesedericioğlu@yahoo.com

**Received/Geliş Tarihi:** 28.10.2013 **Accepted/Kabul Tarihi:** 05.11.2013

**Key Words:** Anisocoria, mydriasis, nebulizer, ipratropium bromide

**Anahtar Kelimeler:** Anizokori, midriasis, nebulizatör, ipratropium bromür

### References

1. Jannun DR, Mickel SF. Anisocoria and aerosolized anticholinergics. *Chest* 1986;90(1):148-149.
2. Bisquerra RA, Botz GH, Nates JL. Ipratropium-bromide-induced acute anisocoria in the intensive care setting due to ill-fitting face masks. *Respir Care* 2005;50(12):1662-1664.
3. Iosson N. Images in clinical medicine. Nebulizer-associated anisocoria. *N Engl J Med* 2006;354(9):e8.
4. Wehbe E, Antoun SA, Moussa JK, Nassif II. Transient anisocoria caused by aerosolized ipratropium bromide exposure from an ill-fitting face mask. *J Neuro-Ophthalmol* 2008;28(3):236-237.