Author's response to reviews

Title: Pulmonary arteriovenous malformations presenting as difficult-to-control asthma: a case report

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Author's response to reviews: see over
Dear Editors,

Please find enclosed revised manuscript

MS 5181327307655241 Pulmonary arteriovenous malformations presenting as difficult-to-control asthma: a case report

We have carefully read recommendations of the reviewer and Editorial comments and we have revised the manuscript accordingly. Almost all recommendations are accepted. All changes in associated manuscript are written in red letters. The reference list has been changed.

Following is the list of amendments:
2. ABSTRACT:

a. The sentence has been changed to: “Diagnosis of Hereditary Hemorrhagic Telangiectasia was made clinically by Curaçao criteria.”

b. The sentence has been changed to: “Genetic analysis revealed mutation in the endoglin gene”.

c. The sentence has been changed to: “Chest X-ray showed a homogeneous soft tissue mass in the lingual area”.

3. INTRODUCTION

a. Introduction section has been reduced. We have moved some text to discussion section.

b. Page 6: The sentence has been changed to: “Pulmonary arteriovenous malformations (PAVM) are abnormal communications between pulmonary artery and vein.”

c. The new text was added, all written in blue letters.

“Asthma is the most common chronic disease in childhood characterized by coughing, wheezing, dyspnea, chest tightness or pressure, and chest pain. The diagnosis of asthma in children requires a careful review of a child’s current and past medical history, family history, and a physical examination, results of lung function tests (spirometry, bronchodilatation test, bronchial challenge test) and finally therapeutic trial of medications.”

d. Page 7: “…large airway obstruction” in now written only once

4. CASE PRESENTATION

a. The new text was added, all written in blue letters.

“CT angiography of thorax showed two pulmonary arteriovenous malformations, each on one side of the lungs. 3D reconstruction of left lobe vascularization showed an AVM and an aneurism with a single feeding artery originated from the pulmonary artery and a single draining vein.”
b. Page 9: Prevention of material migration, when one uses coils for embolisation, can be done in two different manners, anchoring and up scaling. Anchoring is used to occlude the lateral artery branch and in this technique 10% coil ‘oversizing’ is enough to occlude the artery. In scaling up one uses 30% wider coil and then inserts smaller coils that are still broader than the arterial lumen. The usage of wider coils does not exclude the risk of proximal coil elongation ie augmentation of coil length due to smaller arterial lumen which increases the risk of proximal arterial thrombosis. Thus, to reduce the risk of proximal thrombosis in our patient, we used the anchoring technique.

c. The patients further is asymptomatic and he does not fulfil criteria for HHT diagnosis. Further’s cousin have brain AVM. He also do not fulfil criteria for clinical diagnosis of HHT. We did not perform genetic analysis to other members of the family.

5. DISCUSSION

Discussion section has been rearranged, and we hope – better organized.

a. No, it is traditional CT with a specialized software for 3D-reconstruction.

b. The sentence has been changed to: “HHT clinical diagnosis was made by the presence of 3 Curaçao criteria (epistaxis, mucocutaneous telangiectases, and PAVM).”

c. Page 9 to 10: “In general” means among all patients with PAVM.

The sentence has been changed to become more clear: “PAVM can be single or multiple in occurrence and the incidence of single PAVMs ranges from 42% to 74%. (12,13). In HHT patients PAVM are rather multiple (35-65%) (18-20), and usually associated with severe complication and infection”.

d. The sentence has been changed to: “Our patient had two simple PAVM, each on one side of the lung”.

e. This sentence has been moved: “Chest radiographs are abnormal in 98% patients with PAVM (21).”

f. The sentence has been changed: “CT angiography is considered as the “gold standard test” for the diagnosis of PAVM with sensitivity over 97%. Our case also confirm this observation.”
7. FIGURES:

a. The sentence has been changed: “Chest X-ray showed a homogeneous soft tissue mass 20x30 mm in the lingual area”.

b. Possible existence of a small PAVM in right lower lobe is due to its small size, of little clinical significance. The effect of our treatment, when we occluded two bigger PAVMs, was seen instantaneously on patient respiratory status and oxygen saturation. Therefore, we did not raise further questions about suspected smaller and clinically insignificant PAVM.

c. Figure 5: coils in the right upper lobe are not well coalescent with a high risk of reperfusion.

d. Figure 6: The CXR in figure 5 serves us to control the position of coils after intervention and to exclude coil migration. Functional status of occluded arteries was tested during angiogram after intervention and did not show any reperfusion. Depending of the patient respiratory status further controls are indicated. Unless there are clinical signs or symptoms that raise suspicion of arterial reperfusion the use of diagnostic methods that uses ionizing radiation (MSCT) is not recommended, moreover is considered harmful and thus unethical.

Reviewer 2

#The manuscript has been edited by a native-English speaker with scientific expertise.

Editorial board

1. Abstract: The sentence has been changed to: “An 11-year old male Croatian patient with a history of asthma since childhood was admitted to our hospital for evaluation of difficult-to-control asthma in past 6 months.”
2. Case presentation section: The sentence has been changed to: “An 11-year old male Croatian patient with a history of asthma since childhood was admitted to our hospital for evaluation of difficult-to-control asthma in past 6 months.”

3. Consent: The sentence has been changed to: “Written informed consent was obtained from the patient’s mother for publication of this manuscript and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal.”

4. The manuscript has been edited by a native-English speaker with scientific expertise.

We are thankful for your cooperation,

Sincerely

Marta Navratil, and co-authors