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# Spontaneous Retropharyngeal Haematoma: Case Report and Literature Overview

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## ABSTRACT
Spontaneous retropharyngeal hematoma is a rare and difficult case to diagnose early. Very few cases have been reported in the literature. We report a rare case of spontaneous retropharyngeal hematoma presenting with acute onset of neck pain, neck motion limitation and dysphagia. The diagnosis was established by Magnetic Resonance Imaging. The hematoma was drained and the patient condition improved. It is important to be aware of this unusual condition with its distinct presentation. Most cases will resolve with conservative management. Surgical intervention is needed if medical management fails.

**Keywords:** magnetic resonance imaging; spontaneous retropharyngeal hematoma.

## INTRODUCTION
There are numerous conditions which can predispose neck pain in adults. Neck strain, degenerative disc disease, herniated disc, and whiplash injury are some of the common conditions which can lead to this problem.[1] Acute retropharyngeal hematoma is a rare cause of non-inflammatory neck swelling. There are numerous etiological factors leading to retropharyngeal hematoma. If no cause can be found, it is labelled as spontaneous retropharyngeal hematoma.[2] In most of the cases, the diagnosis is delayed because of its rarity and absence of objective signs and diagnostic laboratory data.[3] We report a case of spontaneous retropharyngeal hematoma which came to emergency department with severe neck pain.

## CASE REPORT
A 63 old female patient presented to the emergency department with an 8-hour history of persistent neck pain, limited neck motion and difficulty in swallowing. The symptoms were sudden in onset, severe in nature and rapidly progressive over two hours. The patient symptoms were not relieved with analgesics and muscle relaxants. There was no bruising seen on the neck and front of the chest. There was no history of breathing difficulty. There was no specific past medical history such as a trauma, upper respiratory infection, administration of anticoagulants or any other medical condition. Her past medical history was nonsignificant. She was afebrile. On physical examination, a bulge was seen in the posterior oropharynx and nasopharynx. There was no tenderness, swelling or mass on her neck upon palpation. Laboratory studies revealed a normal white-cell count and normal bleeding and coagulation profile. Transnasal laryngoscopy revealed a bulging posterior pharynx but a patent airway (Figure 1).

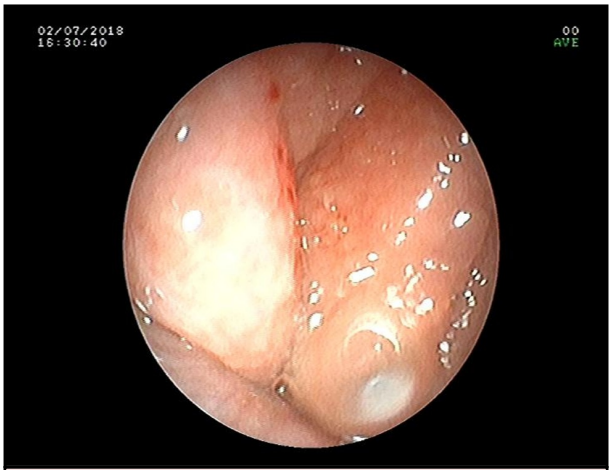


**Figure 1. Nasal Endoscopy showing bulge in the posterior wall of nasopharynx.**

On magnetic resonance imaging (MRI) of the neck, the findings were consistent with a retropharyngeal hematoma (Figure 2). Based on clinical and radiologic findings, a diagnosis of spontaneous retropharyngeal hematoma was made. The patient was managed medically with intravenous antibiotics and painkillers for the next 48 hours, but the patient condition didn't improve. The patient was operated on next day and the hematoma was drained. The patient was

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fine after surgery. No recurrence seen after one month follow up.

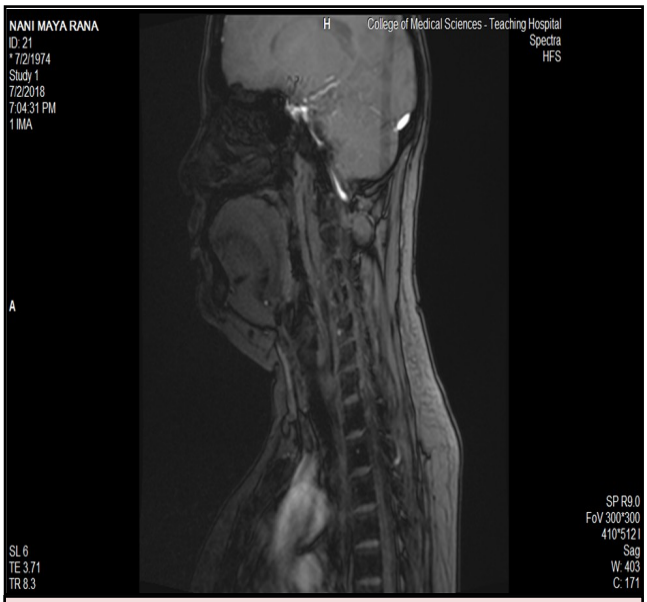


**Figure 2. Sagittal section of MRI showing collection in the retropharyngeal space.**

## DISCUSSION

The retropharyngeal space is a potential space present between the visceral division of the middle layer of the deep cervical fascia around the pharyngeal constrictors anteriorly and the alar division of the deep layer of deep cervical fascia posteriorly. It extends from the skull base superiorly to the tracheal bifurcation inferiorly where the visceral and alar divisions fuse. It contains retropharyngeal lymphatics.[4] Collection of blood in the retropharyngeal space without any obvious cause is called spontaneous retropharyngeal hematoma. This condition is a rare entity, but it can have fatal out-come like internal blood loss and air-way obstruction. Especially when the hematoma is limited to retropharyngeal space, the patient presents with non-specific-symptoms, such as neck pain or dysphagia. In such condition, early diagnosis in an outpatient or emergency depart-ment may be challenging as there is no history of trauma.

Mis-diagnosis of viral pharyngitis can be made as the patient initially presents with only sore throat without shortness of breath. On examination, if a retropharyngeal mass is identified, misdiagnosis of retropha-ryngeal abscess can also be made.[5] The disease may present as a classical manifestations of cervicomediastinal hematomas called “Capps triad”. It consists of tracheal and esoph-ageal compression, anterior displacement of the trachea and sub-cutaneous bruising over the neck and anterior chest.[1,5–7] However the blood loss is usually less. So no signs of hypovolemic shock are seen.

Sometimes clinical signs related to airway compression and dysphagia without a subcutaneous bruising can also be seen.[5] Kang et al reported a case of spontaneous retropharyngeal hematoma where only conservative medical management resulted in the spontaneous remission of the case.[1] Mundra et al reported a case of spontaneous retropharyngeal hematoma where transoral surgical drainage was necessary for the management of the case.[8] This shows that the condition has to be managed according to the severity of the symptoms. If there is no airway compromise, then medical management can be attempted. However if airway compromise is present or if medical management is not helping then surgical drainage of the hematoma is done.

## CONCLUSION

It is important to be aware of this unusual condition with its distinct presentation. Most cases will resolve with conservative management. Surgical intervention is needed if the symptoms are very severe which is not getting relieved by medical management or unless a treatable aetiological factor is found or airway compromise occurs.

### Ethics Approval and Consent To Participate

Informed and written consent for publication was taken from patient. Our ethical committee came is College of Medical Sciences-Institutional Review Committee. Approval from review committee is taken. The letter of approval is uploaded. The reference number is 011/2018.

### Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

### Availability of Data and Material

No new software nor databases had been used for the study. In the article itself, two photograph of nasal endoscopy and MRI of the neck have been kept. The patient information, photographs, address and phone number are not provided for confidentiality reason. However if it a must for the journal, it can be given upon request by editor-in-chief.

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**Conflict of interest:** The authors declare that they have no competing interests.

**Authors' Contributions**

Apar Pokharel provided the clinical and endoscopic findings of the patient. He was involved in both the medical and surgical management of the patient. He was involved in the preparation of the manuscript. Prabhat Basnet provided the Magnetic Resonance Imaging findings of the patient. N.J. Mayya was actively involved in the surgical management of the case. Damoder Kandel was involved in the preparation of manuscript.

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