BACKGROUND
Pyogenic granuloma, also known as lobular capillary haemangioma, is a common, acquired, non-neoplastic, vascular lesion that is often found on the skin and oral mucosa. The term "pyogenic granuloma" is a misnomer, as the lesion does not contain purulent material and is not a granuloma. Lesions have also been reported in the gastrointestinal tract and during pregnancy. Pyogenic granuloma is a smooth or lobulated, red lesion on a sessile or pedunculated base that varies in size from a few millimetres and few centimetres and rarely exceeds 2 cm. The aetiology of PG remains unclear, but they are thought to develop spontaneously or after local minor trauma where excess production of angiogenic growth factors have been implicated. Trachea and bronchial PG lesion is rare and there are only few cases reported in the literature. We present a rare case of pyogenic granuloma of main bronchus which was presented at our hospital.

KEYWORDS
Pyogenic Granuloma, Lobular Capillary Haemangioma.


BACKGROUND
Granuloma pyogenicum is a vascular lesion that occurs on both mucosa and skin and appears as overgrowth of tissue due to irritation, physical trauma or hormonal factors. This is a case which presented with a single lesion in the right main stem bronchus which is extremely a rare location.

Case Report
A 38-year-old female patient presented with haemoptysis, cough & expectoration for 15 days. There was no significant past history and there was no history s/o neither antiplatelet agent nor anticoagulant medication usage. Family history was nonsignificant. She was not hypertensive. Her BMI was 27 & vitals normal. On auscultation, bilateral rhonchi were heard all over the chest. Chest x-ray showed no abnormality. Sputum for AFB was negative. Laboratory tests, Hb% is 6 g%. CT is 3 min. 10 sec; BT is 2 min. 20 sec. On indirect laryngoscopy, everything was normal. CECT chest (Figure 1): A solid isodense mass lesion of 10.5 mm size arising from the posterior wall of the right main stem bronchus at its origin near carina protruding into the lumen of the bronchus. FOB: patient was prepared for FOB just before which she had a bout of haemoptysis and the bronchoscopy couldn't be done. She coughed out a mass of about 10 mm size which was sent for HPE which revealed pyogenic granuloma. The patient was symptom free after the episode. On auscultation, rhonchi that were heard previously disappeared completely. FOB (Figure 2) was re-planned to look for any residual mass. There was a red fleshy growth of approximately 3 mm in the Right main stem bronchus at the carina in the posterior wall. The lesion was removed entirely with forceps and sent for HPE which later revealed pyogenic granuloma. The rest of the bronchi were normal. There was moderate amount of bleeding after the excision. The patient was symptom free since then till the time of discharge. She was told about the prognosis and the chance of recurrence of symptoms and was asked to come for followup in such instances.
DISCUSSION
The pyogenic granuloma also known as lobular capillary
haemangioma is a common, acquired, non-neoplastic, vascular
lesion that is often found on the skin and oral mucosa.\(^1\) It is a
relatively common, tumour like, exuberant tissue response to
localised irritation or trauma. The name pyogenic granuloma
is a misnomer since the condition is not associated with pus
and doesn’t represent a granuloma histologically. Lesions have
also been reported in the gastrointestinal tract and during
pregnancy. It is a reactive inflammatory process filled with
proliferating vascular channels, immature fibroblastic
connective tissue, and scattered inflammatory cells. It
develops rapidly, often at the site of recent injury typically
grows no larger than 2 cm in diameter, and probably
represents a vascular and fibrous response to injury. There is
no sex or age predilection. The lesion tends to be friable &
bleeds easily.

In aspect of anatomic location, it can be found from trachea
to lung parenchyma. The majority are found in trachea but
isolated endobronchial lesions are relatively infrequent.\(^2\).
Pyogenic granuloma of the tracheobronchial tree is an
extremely rare benign tumour in adults, especially those
located in the bronchus.

During pregnancy, pyogenic granulomas (Also known as
an “Eruptive haemangioma”, “Granuloma gravidarum”,
“pregnancy tumour”) may become large and exuberant. Most
frequent symptom is haemoptysis which ranges from minor to
massive.\(^3\)

Diagnosis involves biopsy and histologic examination. Histologic
analysis is required for all removed tissue because
these lesions occasionally resemble and must be differentiated
from other malignant tumours. Characteristics and treatment
of capillary haemangiomas of adult tracheobronchial trees has
not been established yet because of the limited number of
cases.

Treatment options include excisional forceps biopsy with
adequate haemostasis, Nd:YAG laser, argon plasma
coaulation, arteriographic embolisation and endotracheal
brachytherapy.\(^4\) In our case, we used excisional forceps and
safely removed the polypoid lesion without significant
bleeding. The literature to date suggests that most cases have
responded favourably to simple forceps excision via FOB.
When bronchoscopic biopsy for hypervascular lesion is tried,
its should be done with caution in a facility enabled to do
emergent intubation and well equipped with laser coagulation
or well supported by interventional radiology to control
unwanted massive bleeding. In our case, we had the HPE
report already & the bronchoscopic finding was very
characteristic for endobronchial haemangioma showing a
well-circumscribed, reddish hypervascular lesion similar to
cutaneous haemangioma.

CONCLUSIONS
Pyogenic granuloma was noted at a very unusual site like the
main stem bronchus. There were no additional lesions
anywhere in the respiratory tract which is unusual as the
disease presents usually with multiple lesions. So, high index
of suspicion is needed while diagnosing in such unusual
presentations.

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