Case Reports
Chorangiosis of Placenta

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Abstract
Chorangiosis is a placental vascular lesion involving terminal villi and is commonly associated with various foeto-maternal and placental conditions. It is a histopathological diagnosis. It is a rare but ominous condition resulting in higher incidence of perinatal morbidity and mortality. It has to be differentiated from chorangioma, chorangiomatosis, placental congestion and malperfusion of placenta.

We report three cases of this unusual condition in association with foetomaternal and placental disorders.

Introduction
Chorangiosis is a placental change characterized by hypervascular terminal chorionic villi without stromal hypercellularity.1-5 Chorangiosis occurs in 5 – 6% of placentae from new born hospitalized in intensive care units. The reported associated mortality and major congenital malformations have been as high as 42% and 39% respectively.1

Case Report

Case 1. A 28 year old female, primigravida, with severe anaemia with H/o two blood transfusions before delivery. She delivered by FTCS a live baby 2670 gm. Baby had congenital anomaly in the form of hyperextension of elbow in both arms.

Case 2. A 26 year old female, G3 P1L0 D1 had emergency FTCS for foetal distress with H/o PIH and Abruptio Placentae. Her Hb was 8.9 gm%. She delivered a full term live normal baby of 2650 gm.

Case 3. A 24 year old female, primigravida with severe anaemia and pre eclampsia. She presented with intra-uterine foetal death. She delivered MSB 2100 gm with no external congenital anomaly.

Pathological Findings: The gross examination of all the three placentae revealed placental discs with large areas of reddish discolouration measuring 8 x 6 x 4 cm to 10 x 6 x 6 cm with normal umbilical cords and membranes (Fig. 1). Microscopically there were hypervascular villi containing more than 10 vessels in 10 different regions of the placenta (Fig. 2). There was absence of stromal hypercellularity, stromal collagenisation and lattice like reticulin.

Discussion
The normal terminal chorionic villi should contain no more than five vascular channels, even when the same vessel is present in more than one plane of section.2 The diagnostic criteria of chorangiosis were established by Altshuler in 1984 as the presence of 10 villi, each with 10 or more vascular channels in 10 or more areas of 3 or more of random, non infarcted placental areas. Chorangiosis is considered as hypoxia related angiogenesis mainly associated with numerous maternal, foetal and placental disorders1-4 (Table 1).

Chorangiosis has to be differentiated from chorangioma, chorangiomatosis, placental congestion and malperfusion of placenta. Chorangioma and chorangiomatosis are seen before 32 weeks of gestation and involve more proximal elements of villous tree, show increased stromal cellularity, stromal
Chorangiosis is more common after 37 weeks of pregnancy, is a diffuse process involving the tips of terminal villi and has numerous closely approximating capillaries with intact basement membrane.\textsuperscript{3,5} Chorangiosis is a rare disorder associated with higher incidence of neonatal and perinatal morbidity and mortality. It has potential clinical significance because of its association with numerous disorders and should be mentioned in the pathology report of the patient.

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<th>Table 1: Disorders associated with placental chorangiosis</th>
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<td><strong>Risk factors</strong></td>
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<td>Maternal: PIH, Pre-eclampsia, Abruptio Placentae, Diabetes Mellitus, severe Anaemia, syphilis</td>
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<td>Fetal: Intra Uterine Growth Retardation, IU Fetal Death, Congenital anomalies, Apgar Score less than 5</td>
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<td>Placental: Placentomegaly, chronic villitis</td>
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It is known that the use of typical antipsychotic agents (e.g. haloperidol) is associated with an increased risk of sudden cardiac death. This study shows that the same association applies to the newer atypical antipsychotic agents (e.g. risperidone) and is dose-related.

\textbf{Atypical Antipsychotic Drugs and The Risk of Sudden Cardiac Death}