Case Report

Bell's Palsy in Pregnancy: A Case Report

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Abstract

Bell's palsy (BP) is a common condition affecting the facial nerve, often resulting in facial weakness or paralysis. While its exact cause remains unknown, several factors, including pregnancy, can increase the risk. This case report presents a 26-year-oldpregnant woman who developed BP in her third trimester. The patient experienced facial droop, difficulty closing her eye and slurred speech. Considering the expenses, the patient refused further detailed investigations and consultation with a neurologist. Thus, after thorough counseling of the patient and her family, she was treated with corticosteroids for three weeks with tapering dosage and iron/calcium supplements. The patient's condition improved and she delivered a healthy baby vaginally. On follow-up after five weeks, during her postpartum period, the patient and her newborn baby were found healthy. This case highlights the importance of early diagnosis and appropriate management of BP in pregnant women to ensure favorable outcomes for both mother and child. It also provides the physicians of low-resource settings the insight of the patient's perspective of expenses and complexities of receiving treatment through referral services.

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Introduction

Bell's palsy (BP) was first described by Sir Charles Bell in 1830, a mononeuropathy (a condition in which only a single nerve is affected) affecting the seventh cranial nerve, named as facial nerve[1]. This serious mononeuropathy happens when the fascial nerve is swollen or damaged causing facial muscles to become weak or paralyzed[2]. Although this idiopathic peripheral facial palsy caused by mentioned dysfunctional facial nerve inflammation, the precise etiology of BP is unknown. However, the factors that may increase BP are pregnancy, diabetes, myasthenia gravis, Lyme disease and multiple sclerosis and infections, mostly viral[2,3]. Though BP is common in both men and women, the incidence is slightly more in women3. While the overall incidence of BP is about 25 out of every 100,000 people, its prevalence has been identified as45 cases per 100,000 pregnant women annually[4,5]. During pregnancy; majority of severe BP cases occur in the third trimester or the postpartum phase and is a special medical condition that needs unique treatment. While we don't fully understand the connection between BP and pregnancy, it is often thought that high blood pressure and obesity are risk factors associated with BP during pregnancy[6]. This case report aims to help us better understand the complexities of facial nerve palsy in pregnant women and emphasize the importance of healthcare providers in ensuring the best possible outcomes for both the mother and her baby.

Case Report

A 26-year-old multigravida, presented to the Obstetrics and Gynecology outpatient clinic of President Abdul Hamid Medical College and Hospital with the complaints of 28 weeks of gestation, mild fever for two days and suddenon the right side of her face. It was her third pregnancy.

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She had previous two vaginal birth at home. She did not receive any antenatal care during her previous two pregnancy and in this index pregnancy as well.She had an unremarkable medical history with no history of any chronic medical condition and her pregnancy period was going well until she suddenly developed mild fever for two days. She also complained of drooling. These symptoms had been there for more than 24 hours. She didn't, then she noticed facial symptoms one day back. She noticed that the right side of her face was weak and she couldn't fully close her left eye, which made her eye dry.She also noticed that the right side of her mouth was drooping, difficulty in chewing and slurred speech. have any other problems with her nervous system or body. On examination, it was clear that her face was not symmetrical, her right eye didn't close completely, she couldn't keep her mouth completely closed and the right side of her mouth was drooping. She also had trouble making different facial expressions on the right side. Her vital signs were within normal ranges. The fetus was healthy with normal physical activities, fetal heart sound and adequate amniotic fluid as identified in ultrasonography. We requested her for a neurology consultation and to have further investigations for the facial nerve palsy. We advised her for a Magnetic Resonance Imaging (MRI) to identify structural abnormalities or lesions affecting the facial nerve. However, the patient refused to continue further investigations or consultation except for obstetrics consultation. After appropriate counseling of the patient, her husband and mother-in-law, we prescribed her steroid. The dosage schedule included tablet prednisolone at 10 mg three times daily for the initial five days, followed by two times daily for the subsequent five days, then reduced to once daily for another five days and finally, once in every alternate day for five days. She received regular iron and calcium supplementation as well. The patient came back after two weeks for follow up, then every four weeks and she completed total three follow ups before delivery. Her condition steadily got better and her fetus was healthy all along. She was counselled for hospital delivery and shedelivered a healthy male baby vaginally at her 40 weeks two days after spontaneous onset of labour pain. After 24 hours of hospital stay the patient with her newborn were discharged from hospital, both healthy. She came back on her 35-day post-partum for follow up and both the mother and baby were found well.

Discussion

Facial paralysis during pregnancy can be particularly isolating, however, may become frightening. This is a time of heightened emotions and discovering a facial paralysis can be a significant shock. A study conducted by Hilsinger et al. suggests that BP is 3.3 times higher in pregnant women[5]. Another research revealed a reduced event of BP in the early stages of pregnancy, with a two- to-four-fold increase in frequency during the last trimester and the puerperium[7]. We identified the case of BP during early third trimester. The most common presenting symptom of Bell's palsy is a one-sided facial droop. Other common symptoms, which typically occur on the affected side, may include: loss of feeling in the face, headache, excessive tear production, ringing in the ear, drooling, impaired speech, loss of the sense of taste, hypersensitivity to sound, inability to close the eye or blink properly, difficulty smiling and change in speech[6]. In this case, she had right sided fascial nerve palsy and we identified several of these above-mentioned symptoms, which were asymmetrical facial expression. She was not able to close her right eye completely, couldn't keep her mouth completely closed, the right side of her mouth was drooping, had trouble making different facial expressions on the right side. The common differential diagnosis of BP are fascial trauma, stroke, facial nerve tumors (neuromas, meningiomas, hemangiomas and malignant primary and metastatic lesions), Guillain- Barré syndrome, basilar meningitis, cerebellar pontine angle tumor etc[8]. In this case, the patient had no other neurological symptoms and considering the expenses she required the patient party refused further investigations. Thus, after thorough counseling of the patient and her family we managed the case as BP with steroid.

Conclusion

It was acknowledged that facial nerve palsy during pregnancy is a relatively rare clinical entity with multifactorial potential causes. The need for a multidisciplinary approach was paramount to ensure optimal care for the pregnant woman and the developingfetus. Personalized management

strategy is imperative and we need to consider patients' socio-economic condition and her desires. This case study explains the specific details of BP in pregnant women along with the complexities of its treatment and socio-economic background of the patient in context of developing country.

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