



Rare occurrence of Bell’s Palsy in Pregnancy in a low resource setting

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INTRODUCTION

Bell’s Palsy (BP) is a neurological disorder that arises from swelling or other injury to the 7th cranial nerve, causing its dysfunction. It results in paralysis or weakness on the affected side of the face. Symptoms are usually temporary and resolve over weeks to months, however in some cases the damage is permanent. The exact cause of BP is unknown; however, it has been linked to reactivation of the Herpes simplex virus. It is the most common cause of one-sided facial nerve paralysis (70%) and occurs in 1-4 per 10,000 people per year. Pregnant women are 3 times more likely to be affected by BP and this is thought to be due to increased extracellular fluid, hypercoagulable state, hormonal changes and relative immunosuppression in pregnancy. Other risk factors include diabetes, obesity and it has also been linked to pre-eclampsia.

CASE REPORT

History:
25- year-old female G3P1+1 at 38+4 presented to hospital with a one-day history of unilateral facial swelling, severe headache & slurred speech. She has a history of chronic hypertension well controlled on Aldomet 500 mg pobb and Gestational Diabetes controlled on diet.

Physical Exam:
Swelling on left side of face, twisting of face to the left, flattening of forehead and partial loss of right naso-labial fold.

Investigations:
All pertinent investigations were within normal limits. Fetal well being was reassuring.

Assessment and Plan:
Bell’s Palsy in pregnancy. Plan for delivery followed by commencement of corticosteroids, as per medicine.

Clinical Course and Outcome:
She had induction of labor with misoprostol but subsequently had abdominal delivery due to fetal distress. She was started on Prednisone 60 mg pood post-delivery x5/7 followed by 5/7 taper. She was discharged on post-op day 2. 5 week follow up revealed improvement in slurred speech and deviation of face.

TABLE 1					
The House and Brackmann scale for the severity of peripheral facial nerve palsy					
Grade	Description	Finding at rest	Forehead innervation	Lid closure	Mouth innervation
I	normal	normal	normal	normal	normal
II	mild dysfunction	normal	reduced	nearly normal	nearly normal
III	moderate dysfunction	normal	still barely possible	still barely possible	reduced
IV	moderately severe dysfunction	normal	none	incomplete	asymmetrical
V	severe dysfunction	asymmetrical	none	incomplete	asymmetrical
VI	total paralysis	complete loss of tone	none	none	none

Fig.1 The House and Brackmann scale for the severity of peripheral facial nerve palsy



Fig 2: (left) Patient at acute presentation

DISCUSSION

Bell’s Palsy is dysfunction of the facial nerve leading to paralysis and weakness to the affected side. It is more common in pregnancy due to physiological changes. It has also been noted that Bell’s Palsy is more severe (such as complete facial paralysis) with worse prognosis in pregnancy, whereas the recurrence in pregnancy is rare. Pregnancy itself and delayed treatment are said to be the cause of the long-term effects being more severe/persistent. Studies show that treatment with corticosteroids within 3 days of symptom onset is associated with full recovery. The concomitant use of antiviral medication is controversial. Based on the history and physical examination, it was clear that it was a case of Bell’s Palsy in pregnancy. This patient had a number of risk factors including being obese, having a history of preeclampsia as well as gestational diabetes- not to mention, pregnancy. Patient was delivered promptly and started on corticosteroids less than 72 hours of onset of symptoms As a result, at 5 weeks postpartum there was significant improvement.

CONCLUSION

BP is more common in pregnant than non-pregnant women due to some of the physiological changes in pregnancy. Treatment should be the same and initiated within 72 hours of onset of symptoms. The addition of antiviral medication should be considered for added benefit in select cases and all patients should receive physiotherapy.

FURTHER WORK

Future research can be geared towards the effect of corticosteroid therapy on neonates since this is often the reason treatment is delayed in pregnant women.