Enalaprilat Induced Acute Parotitis


Abstract
Drug induced acute parotitis is a very uncommon complication reported with a few drugs only. There is no case of acute bilateral parotitis reported previously with i.v. enalaprilat. We present here a female patient who developed acute bilateral parotitis within minutes of i.v. enalaprilat injection and recovered within 24 hours of stopping the drug and with symptomatic treatment.

INTRODUCTION
Acute bilateral parotitis as a complication of drug reaction is a very rare finding. There are no case reports in the literature available till now of association of parotitis with enalaprilat injection. Two cases have been reported in 2004 that developed acute bilateral parotitis on taking captopril, which was attributed to a type B idiosyncratic adverse drug reaction.1 In our case acute bilateral parotitis occurred with injection enalaprilat. Though enalaprilat belongs to same group as captopril no case has been reported in past with enalaprilat.

CASE REPORT
A 32 years female presented with severe headache and blurring of vision for past few weeks. On examination, her blood pressure in both arms was 200/130 mm Hg. She was not a known hypertensive, there was no bruit on clinical examination in renal or carotid arteries and there was no radioradial or radiofemoral delay and did not have features of heart failure. There was no focal neurological deficit. Her ECG showed features of left ventricular hypertrophy and fundus examination revealed bilateral grade IV retinopathy. Her renal functions were normal.

Patient was diagnosed as accelerated malignant hypertension and was treated with enalaprilat injection 1.25 mg given i.v. over 5 minutes. Her blood pressure reduced to 150/100 mm Hg by one injection of enalaprilat. Within a few minutes of injection patient developed painful swelling of both parotids, which was tender on examination (Figs. 1, 2). There was no associated rash, pruritus, wheeze, lip or tongue swelling, or any other gland enlargement. She was given injection hydrocortisone 100 mg i.v. and oral antiinflammatory drugs (Aceclofenac 100 mg twice a day). Her parotid swelling decreased within few hours and very little swelling persisted after 24 hours (Figs. 3, 4). Enalaprilat was omitted and she was then put on alternative drugs including i.v. nitroglycerine (titrated upto 200 microgram/min), oral amlodipine 10 mg/day, and diuretics but blood pressure remained around 180/110 mmHg. Her renal Doppler study was done which revealed unilateral renal artery stenosis with a small kidney. She was given one rechallenge of enalaprilat 1.25 mg given i.v. over 5 minutes, which successfully controlled her blood pressure, but there was no recurrence of parotid swelling. The patient was then switched over to oral enalapril and was controlled with only 5 mg/day of oral enalapril. No other apparent cause of acute parotitis was found in this patient.

DISCUSSION
Enalaprilat i.v. injection is used in setting of hypertensive emergencies. Commonly reported adverse reactions with this drug are excessive hypotension, angioedema, neutropenia/agranulocytosis, hepatic failure, and fetal malformations. Acute bilateral parotitis has not been mentioned in any of the available literature as an adverse side effect of this drug. Captopril induced sialadenitis has been reported in two patients in 2004 which also subsided after stopping the drug.2 They have attributed the phenomenon to a type B idiosyncratic adverse drug reaction. In our patient also such a possibility remains high, but a class effect cannot be ruled out and will need more such reports from different authors.

As an adverse effect acute parotitis is not very common finding. We have found only few such reports with drugs like nitrofurantoin, clozapine, α-methyldopa, nifedipine, nicardipine, captopril, clormethimazole, oxyphenbutazone, phenylbutazone, and terbenafine.2-11 Out of these implicated drugs
phenylbutazone,\textsuperscript{9} clozapine,\textsuperscript{10} nifedipine,\textsuperscript{2,3} captopril\textsuperscript{1} have been reported in more than one patient. Others drugs are having isolated reports. Out of these most recently in 2004 there is a report of two patients who developed acute sialadenitis with captopril and recovery within hours of stopping drug.\textsuperscript{1} The antihypertensives that have been found associated with acute parotitis include α-methyldopa,\textsuperscript{7} nifedipine,\textsuperscript{2,3} nicardipine,\textsuperscript{4} and captopril.\textsuperscript{1}

And latest in this group is i.v. enalaprilat which was seen in our patient. This adverse reaction was tested on Naranjo’s algorithm\textsuperscript{12} and a score of 8 was obtained which puts this reaction as probable in the algorithm. Moreover, antihypertensives as a group now become single most important group associated with this adverse reaction, possibly a mere coincidence. The need for recognition and reporting of all such cases is evident, so that exact mechanism and incidence of such reactions becomes clear in future.

**References**