

Current Status of Role of Serum Amylase and Lipase to Triage Blunt Pancreatic Trauma?

ABHISHEK MAHAJAN

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Dear Sir,

Role of serum amylase in detecting pancreatic trauma has always been a controversy. Mixed outcomes have been reported ranging from limited benefit to time since injury bound benefit [1]. Mahajan et al., in systematic review highlighted the role of serum pancreatic enzyme in detecting blunt pancreatic trauma. The prospective study with the systematic review highlighted the role of combined serum amylase and lipase evaluation for predicting pancreatic trauma in resource constrained countries which have limited availability of computed tomography [1]. The results have been strongly reiterated in the study by Singh et al. They concluded a statistically significant correlation in the patients who had elevated serum pancreatic enzyme levels (serum amylase and lipase) levels and those who underwent surgery intervention. This study also highlight that raised levels can be used as a predictive biomarker for need for laparotomy [2]. However, both the studies did not evaluate the cost-benefit ratio which would have had a clinical implication in terms of formulating guidelines for pancreatic trauma management.

Post-traumatic evaluation of serum amylase levels is multifactorial and the most important non-pancreatic causes include time since trauma, associated hypotension and associated craniofacial and associated bowel trauma [1,3]. Thus it would be interesting to investigate the statistical differences in the clinical profiles of patients with or without elevated serum pancreatic enzyme levels and associated pancreatic trauma patient with elevated serum amylase in a larger cohort. This will provide relevant information to confirm or refute its clinical applicability.

Another area of interest would be to investigate if serial serum amylase assessment will further add any benefit to diagnosis and

grade pancreatic injuries. This might also have a bearing on length of hospital stay and cost incurred [3,4]. The adjunct role of lipase enzyme assessment has not been included in most of the studies. Moreover these studies fail to give a holistic picture of use of pancreatic enzyme assessment as a predictive marker of intrabdominal injury [1-4]. Lastly the cost incurred for the combined serum pancreatic (amylase and lipase) enzyme investigation in a developing country is significantly lower than that in a developed country [4].

Keeping in mind the above-mentioned deficiencies of the current literature, role of combined serum amylase and lipase as a predictive marker for blunt pancreatic injury definitely holds a promise as a cost effective tool in limited resource settings that are not having access to imaging tools like computed tomography. However, this needs to be prospectively validated in a larger cohort with cost-benefit analysis.

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PARTICULARS OF CONTRIBUTORS:

1. Assistant Professor, Department of Radiodiagnosis, Tata Memorial Centre, Mumbai, Maharashtra, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Abhishek Mahajan,
Room No 120, Department of Radiodiagnosis, Tata Memorial Hospital, Mumbai-400012, Maharashtra, India.
E-mail: drabhishek.mahajan@yahoo.in

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