Amebic Liver Abscess is Associated with Malnutrition and Low Serum Leptin Level

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Abstract

Background and Objective: Amebic liver abscess (ALA), the most common form of extra-intestinal amebiasis is caused by the protozoan parasite *E. histolytica*. It is a prevalent parasitic infection in the northern region of Bangladesh for which hospital admission is required. The aim of this investigation was to explore the clinical spectrum of amebic liver abscess and its relationship with malnutrition and serum biomarker leptin.

Methods: The study population included 90 hospitalized ALA patients and 90 healthy controls during the period of July 2012 to June 2015. Liver abscess was diagnosed initially by ultrasound imaging and amebic liver abscess was confirmed by detection of *E. histolytica* DNA in abscess aspirates using a Real Time PCR. Body Mass Index (BMI) was measured conventionally for nutritional status and serum leptin was estimated by ELISA.

Results: Among the ALA cases (N=90), 37% had low BMI against only 3% of controls (N=90) [p<0.0001 at 95% CI]. About69 (76%) of low BMI patients had large or multiple liver abscess in comparison to 29% of standard BMI (p<0.0001 at 95% CI). Likewise, body fluid derangements such as edemaMpMiassi lef8% M(9ÅEÅM (p<0.000ÄcvåÅte or ±

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	<2 weeks	>3 weeks		P value
Patients with standard BMI	48 (53.3%)	05 (5.5%)	53 (58.8%)	
Patients with Low BMI	04 (4.4%)	33 (36.7%)	37 (41.2%)	
Total	52 (57.7%)	38 (42.2%)	90 (100%)	<0.0001

Patients with low BMI had more duration (>3 weeks) of hospital stay for recovery than patients of standard BMI (p<0.0001) (Table 3).

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