artial characterization of a thermo-stable lipoprotein ("antigen 880") of hydatid cyst fluid (HCF).

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Abstract:

A purification procedure for a HCF thermo-stable lipoprotein designated as "Antigen 880" and subsequent characterization are described. The molecular weight and PI of the lipoprotein were shown to be 240,000 daltons and 4.2 respectively. The antigenic activity of "Antigen 880" was not affected by trypsinization, pepsinization and delipidization. This suggested that the antigen activity of the lipoprotein recided in both the protein and lipid moieties. Treatment of the antigen with various concentrations of iodoacetamide and dithiothreital (DTT) and subsequent assay for antigenic activity showed that the two chemicals did not affect antigenic activity. This suggested that the di-suphide bonds were not a pre-requisite to antigenic integrity of the lipoprotein. After heating HCF at temperature between 105-121 degrees C, it was shown that "Antigen 880" was the only HCF antigen which retained activity at these temperatures. Further analysis of the supernate obtained after heating concentrated HCF at a temperature of 110 degrees C for 10 minutes by use of Sephadex G-200 column showed two peaks. Antigenic activity specific for "Antigen 880" was obtained in Peak I, while no antigen activity was found in Peak II. When Peak I was analyzed using step-by-step DEAE 52 ion exchange chromatography, only one peak was eluted with 0.2M phosphate buffer, pH 8.5. This peak had antigenic activity for "Antigen 880". Analysis by disc-gel electrophoresis of the antigenic preparation obtained from the DEAE-cellulose column revealed one protein species. "Antigen 880" was shown to be stable for 10 months after incubation at pH1-11