

INTRODUCTION

Increased urbanization and industrialization in many developing countries have resulted in atmospheric pollution and contaminant health problems. The determination of trace elements levels in hair has been a subject of continual interest in the biomedical and environmental sciences. The significance of such measurements as an indices for assessing nutritional status, diagnosis of intoxication and monitoring environmental exposure. (*Cortes Toro et al., 1993*)

Several reports have associated the presence of sub-toxic concentrations of various non-nutrient-metals with behavioral and learning disabilities in children. (*Capel et al., 1981*) Examination of hair is a good non-invasive method which should be used in screening studies of children living in high polluted areas. Since pollutants accumulate in hair reaching higher levels in children exposed to pollution than in those unexposed. (*Chlopicka et al., 1995*)

Several years ago there has been public concern that concentrations of lead which were previously considered to be safe in humans may be related to impaired performance by children on intelligence tests and to hyperactivity, other behavior disorders and poor attainment in school. (*Needleman et al., 1979*) Many children are considered to have behavioral problems before the diagnosis of lead poisoning is entertained. (*Shannon and Graef, 1992*) It is possible that many who do not progress to the stage of frank encephalopathy are never diagnosed and treated and

eventually appear in school with learning disabilities, hyperkinetic syndrome and other behavioral problems. This changes was based on data indicating that irreversible adverse neurodevelopment effects with decreased IQ occur in children with chronic low level of lead exposure .
(Shannon and Graef, 1992)

AIM OF THE WORK

The aim of this work is to

1. Identify the relationship between the levels of some heavy metals in hair, and intelligence quotient and behavioral status (Total aggression) of children .
2. Exploring the feasibility of using heavy metals in hair samples as an indicator of environmental pollution.