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EXCESS AMOUNT OF CHROMIUM TRANSPORT FROM TANNERY TO HUMAN BODY THROUGH POULTRY FEED IN BANGLADESH AND ITS CARCINOGENIC EFFECTS

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ABSTRACT

Poultry farm is the main source of chicken in over the world. In the last few years, tannery waste, owing to high protein content, has been used in the manufacture of poultry feed in Bangladesh. A large amount of chromium, one of the toxic chemicals, is usually found in tannery wastes which are the most direct way of chromium contamination in food chain. At first, here we present the experimental evidence for the transport mechanism of chromium from tannery wastes to poultry meat as well as the human body, and discuss its toxic effects on human being. We found various amounts of chromium deposited in different parts of chicken who were fed such poultry feed, and the values are mostly increased proportionate to feeding time. For two months feeding, 328 to 4561 µg/kg chromium is deposited in different parts of chicken which is 6 to 76-times higher than the standard limits. The excess amount of chromium easily enters the human body through the chicken meat without being destroyed by cooking, leading to the carcinogenic effects on human beings. This is highly alarming for the consumers eating chicken who are fed this poultry feed.

KEYWORDS: Tannery Waste, Chromium, Poultry Feed, Chicken Meat, Human, Carcinogenic Effect