Hodgkin's Lymphoma in Sheep Parotid Lymph Node: a Case Report

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ABSTRACT

Hodgkin's disease is a malignant lymphoproliferative disease of people. The disease has an association with Epstein-Barr virus, although virus negative tumors do occur. The pathological diagnosis is based on the detection of the Reed-Sternberg cells in an appropriate cellular and architectural background. The cellular components, and thus the background appearance, define the histological variants of Hodgkin's disease; in order of declining prognosis, these are lymphocytic predominance (< 5 percent of cases).

Key words: Hodgkin's lymphoma, parotid lymph node, sheep, Tabriz

Introduction

Hodgkin's lymphoma caused by Hodgkin cells or Reed-Sternberg cells (H-RS) and is one of the white blood cell malignancies. H-RS cells results in expression of several cytokines such as IL1, IL2, IL3, IL4, IL6, IL10, macrophage colonization stimulating factor (GM-CSF) and transforming growth factor [2,6]. This lymphoma microscopically characterized by H-RS cells malignant proliferation, which indeed are malignant B-lymphocytes. This disease associated with good results because treatment is more than 80 percent [1,7].

Description of observations:

This case report is established based on observation of Hodgkin lymphoma in parotid lymph node before and after slaughter. Before slaughter with observation of enlarged parotid lymph node in right cervical area of one year old sheep Possibility of Hodgkin's lymphoma was considered (figure 1). Then after slaughter, sample to preparation of pathological sections sent to pathology laboratory of Islamic Azad university, veterinary faculty. After processing, with observation of proliferated B-cells this report was proved (figure 2).

Discussion:

Hodgkin's lymphoma, previously known as Hodgkin's disease, is a type of lymphoma, which is a cancer originating from white blood cells called lymphocytes. It was named after Thomas Hodgkin, who first described abnormalities in the lymph system in 1832 [10]. Hodgkin's lymphoma is characterized by the orderly spread of disease from one lymph node group to another and by the development of systemic symptoms with advanced disease. When Hodgkin's cells are examined microscopically, multinucleated Reed-Sternberg cells (RS cells) are the characteristic histopathology finding. Hodgkin's lymphoma may be treated with radiation therapy, chemotherapy or hematopoietic
stem cell transplantation, the choice of treatment depending on the age and sex of the patient and the stage, bulk and histological subtype of the disease [11]. In one research were done by Sophie et al., [11], one case of Hodgkin's lymphoma on ovarian tissue were observed [9]. Also in one other study were accomplished by Sietz et al., [10], one case of Hodgkin's lymphoma on vertebrate lymph nodes were seen [8]. In Hodgkin's lymphoma IL4 receptors were expressed excessive on H-RS cells and these cells are susceptible significantly to cytotoxin effects of IL4 [6]. This is compatible with results which have been rendered by Husain et al., [5], Kawakami et al., [6] and Kawakami et al., [7]. In these researches has been mentioned that IL4 cytotoxins can be mediate significantly anti-tumor actions [3,4,5].

References