

COMPARISON OF COLOSTRUM INGREDIENTS IN DYSTOCIA AND NORMAL LAMBING EWES

Mohamed K. Hamed AL-Absawi^{*1}, Mosa Fadiel Abbas² & Hussein A. Khamees³

^{*1}Assist prof: Department of Veterinary Public Health, College of veterinary medicine, University of AL-Muthanna, Iraq

²Lecturer: Department of Surgery and Obstetrics. College of veterinary medicine, University of Basrah

³Lecturer: Department of Surgery and Obstetrics. College of veterinary medicine, University of ALMuthanna

ABSTRACT

This study was conducted in Al -Muthanna Province (southern Iraq) on a group of sheep, as it is among 40ewes. The study aims to measure some of the ingredients of the colostrum in the normal lambing ewes with other ewes in the same field that suffered from dystocia. Forty ewes were selected and divided into four groups:

Group1 included 10 ewes (aged between 3-3.5 years), with normal lambing. Group2 included 10 ewes (aged between 3-3.5 years) who suffered from dystocia. Group3 included 10 ewes (aged between 5-5.5 years) with normal lambing. Group4 10 ewes (aged between 5-5.5 years) suffered from dystocia. A sample of 5 ml colostrum was collected from the ewes for all groups and was resulted with sterile tubes and refrigerated until sent to the laboratory to perform the necessary assessments according to this study. The study showed a significant difference for some of the components of colostrum between the study groups, as the study showed an increase in the level of fat level in group1 (6.8 ± 0.59) compared with other groups, and there was a significant increase in the protein level in the group1 (8.3 ± 0.3) and group3 (10.9 ± 2.96) compare with group2 (3.7 ± 0.82) and group4 (5.0 ± 1.08). The study shows a significant increase in the sugar level in the group1 (4.52 ± 0.22) and group3 (6.8 ± 0) compare with group2 (3.1 ± 0.20) and group4 (4.5 ± 0.21). The study also showed a significant increase in the ingredients of the colostrum in the oldest animals (5-5.5 years) compared to the small ages (3-3.5 years). Briefly, the study shows that dystocia negatively affects the ingredients of the colostrum necessary to feed the lambs after parturition because it has a role in giving fats, sugars, and proteins, especially immunomodulators from them, which the lamb needs at the beginning of his life.

Keywords: colostrum, dystocia, lambing, ewes.

1. INTRODUCTION

Sheep are an important animal in many countries because they can be successfully raised under harsh conditions and cost relatively little to maintain, Awassi breed is the most numerous and

widespread breed of sheep and has admirably adapted to the rigorous conditions in Iraq, Awassi is also resistant to diseases and parasites as well as growth abilities (Galal *et al.*, 2008). Colostrum: The first secretion before milk that converts gradually to milk. Colostrum was different from milk in color, texture, and viscosity, odor, taste (Kailasapathy.,2009). Colostrum quality although it is recognized that colostrum contains a wide spectrum of important immune and nutritional components, because of the relationship between Ig concentrations and calf health, and because IgG composes more than 85% of total Ig in colostrum, the concentration of IgG in colostrum has traditionally been considered the hallmark for elevating colostrum quality. High-quality colostrum has an IgG concentration greater than 50 Colostrum has many important functions: Contains antibodies, has a good amount of protein and energy, laxative to clean the digestive system, contains minerals and vitamins easy to absorb, reduces the mortality rate, contains growth hormones, and limits diarrhea cases (Hernandez *et al.*,2014). Dystocia: It affects the quality and quantity of colostrum as a result of an increase of adrenal steroids from the calf due to dystocia case which can be a factor of permeability of intestine cells changes of the newborn calf then it's the ability to absorb the globulin be low (Sangild.,2003). Age of dam: Most, but not all, studies report a tendency for older ewes to produce higher quality colostrum, presumably because older animals have had a greater period of exposure to farm-specific pathogens (Godden.,2008).