

بزان جوان (۵۳ درصد) در مقایسه با بزان بالغ (۴۷ درصد) به طور معنی داری بیشتر تعیین گردید. جنس بزان در شیوع بیماری مؤثر نبوده و فصل بهار به طور معنی داری در ارتباط با بروز بیماری بالاترین درصد بروز (۲۴/۸۱ درصد) را به خود اختصاص داده است. دیگر فصول نظیر تابستان (۱۷/۰۲ درصد)، پاییز (۱۶/۹۶ درصد) و زمستان (۱۶/۷۲ درصد) در مراتب بعدی قرار داشتند. مشخص گردید که تزریق یک بار زیر جلدی آیومکتین (Ivomec R- MSD) B1 به طور صددرصد برعلیه بیماری همونکوزیس می تواند مؤثر باشد.

اپیدمیولوژی بالینی و شیمی درمانی همونکوزیس در بز در فیصل آباد

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اپیدمیولوژی و شیمی درمانی همونکوزیس در بز توسط بخش داخلی و جراحی دانشگاه فیصل آباد مطالعه شده است. از ۲۵۴ بز ارجاع داده شده به کلینیک مزبور در طول مدت یک سال (مارس ۱۹۹۲ لغایت فوریه ۱۹۹۴) جمعاً ۴۶۲ مورد همونکوزیس ثبت گردید (۱۸/۸۱ درصد). شیوع بیماری مزبور در میان



Table - 1: month wise incidence of haemonchosis in goats

Month	No. examined	Positive	Percentage
March	220	48	21.81
April	195	55	28.20
May	185	48	25.94
June	240	40	16.66
July	218	30	13.076
August	185	23	12.43
september	222	30	13.51
october	220	45	20.45
Novmber	195	26	13.33
December	215	35	16.27
January	240	40	16.66
Fedruary	205	42	20.48
Total	2540	462	18.18

Table - 2: Efficacy of ivermentin against haemonchosis in goats.

Day of treatment	3 rd	7 th	18 th
Efficacy percentage	40	75	100

DISCUSSION

In the present study, the epidemiological data on haemonchosis was collected from clinically affected goats. It was observed that highest incidence (28.80%) was observed in the month of April while lowest (12.43%) in August. Vasudevan and Basuthakar (1986), Charles and Bakar (1988) also reported similar results.

The incidence of the disease in respect to the physiological status of goats revealed that infection rate in older goats was less than youngsters. These findings are in line with those of Suh et al. (1980) and Riche et al. (1973). Results regarding the efficacy of ivermectin against haemonchosis in goats was 100%. Nearly similar results have also been reported by other workers (Shastri, 1989, and Tada et al., 1992).

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CLINICAL EPIDEMIOLOGY AND CHEMOTHERAPY OF HAEMONCHOSIS IN GOATS IN FAISALABAD, PAKISTAN

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The epidemiology and chemotherapy of haemonchosis in goats were studied at the out door clinics of the Dept. of Clinical Medicine and Surgery, University of Agriculture, Faisalad. Of 2540 goat accessions to our clinic over a one year period (March, 1993 to February, 1994), haemonchosis was recorded in 462 (18.81%) animals. The prevalence was significantly higher (53%) among young animals than adult (47%), Sex had no bearing on the prevalence of the disease. The spring season was most strongly associated with the occurrence of the disease (24.81%) followed by summer (17.02%), autumn (16.96%). A single subcutaneous injection of Ivermectin B1 (Ivomec R-MSD) @ 200ug/kg was found to be 100% effective against haemonchosis in goats.

Haemonchosis is a wide spread disease of ruminants and causes heavy losses. In Pakistan the incidence of *Haemonchus contortus* has been recorded. It has been estimated that each worm receive about 0.05ml of blood per day by ingestion and seepage from the lesions (Urquhart et al., 1988) and thus causes acute haemorrhagic anemia. In acute form there is anemia, Progressive and dramatic fall in packed cell volume. Haematocrit fall causes increase in appetite, the bone marrow eventually exhausted due to continuous loss of iron and proteins in the gastro-intestinal tract and resulting in death. In chronic form there is progressive loss of weight and weakness, anemia is not very severe (Soulsby, 1982). It has been estimated that 10.3 percent mortality in goats and sheep occurred due to haemonchosis (Chaudhry and Khan, 1978) and 20 to 40 percent reduction in wool growth had been recorded (Barger and Southcott, 1978).

Keeping in view the economic importance of this disease, the present study was conducted to determine the epidemiology of infection in an efficient manner under local climatic conditions.

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MATERIALS AND METHODS

The season and month wise incidence of clinically affected goats brought to the clinics of the Dept. of Clinical Medicine and Surgery, University of Agriculture, Faisalabad for treatment Purpose was recorded by routine of faecal samples. Incidence in relation to age and physiological status was also observed.

Parasitological Techniques: The faecal samples were examined by sedimentation technique and eggs were identified on the basis of morphology. Eggs per gram of faeces of individual animal was made by Mc master egg counting technique (Coles, 1974). 30 Positive cases were selected for anthelmintic trials. These animals were randomly divided into 2 groups taking 20 animals in group A and 10 in group B. Animals in group A were treated with Ivermectin @ 0.02mg/kg body weight subcutaneously. No treatment was given to the animals of group B which acted as untreated control.

Fresh faecal smears were examined on 3rd, 7th and 18th day post-treatment and egg counts were made by Mc Master egg counting technique (Coles, 1975). The efficacy of the drug was calculated on the basis of reduction in faecal egg counts. The side effects of the drug, if any, were also noted.

RESULTS

During the one year study period i.e., from March, 1993 to February, 1994, 2540 goat accessions were examined, of which 462 (18.81%) animals were harboring *H. contortus*.

Month wise incidence: Month wise incidence of *H. contortus* infection is shown in Table - 1. During the period under study, the highest incidence of haemonchosis was recorded during the month of April with the infection rate of 28.20 percent. While the lowest incidence was recorded during the month of August. being 12.43 percent.

Season wise incidence: The highest infection in clinically affected goats was recorded in spring season i.e., 24.56%, While lowest during winter 16.72%.

Incidence in relation to physiological status: In clinically affected goats the incidence was more (53%) in young goats than adult (47%).

Therapeutic trials: The results of therapeutic trials are given in Table -2. It was evident that ivermectin was 100% effective against haemonchosis in goats. The general body condition of goats improved gradually after treatment. In untreated control group, a gradual rise in egg was observed till the end of the study period.

