‘SURVEY OF GASTROINTESTINAL HELMINTH PARASITES OF GRAZING GOATS FROM MANTHA ’JALNA, (MAHARASHTRA), INDIA

Dr. Tushar Dhondge, Head & Asst. Prof., Dept. of Zoology
Swami Vivekanand Senior College Mantha, Di. Jalna, Maharashtra

Abstract:

In the present study report focus is given on the infection with roundworms, cestodes & trematodes which are infecting the gastrointestinal part of grazing goats from the mantha ground. 298 intestinal examination of goats observed & noticed the different parasitism. It brought into the noticed that helminth infection was more in rainy season as compare to the rest two seasons. Among the helminthes parasites nematodes were Haemonchus (41%), Trichuris (39%), Nematodirus (28%), Strongyloides (17%), ascaris lumbricoides (24%) and Oesophagostomum (25%). Among cestodes, Monezia (16%), Avitellina (21%) were reported. Among trematodes, Fasciola (31%), Dicrocoelium (30%) and, Paramphistomum (21%) were most prevalent. The present report realized that gastrointestinal helminthic infections varies in different seasons and fluctuating in the parasitism with changing the environment.

Key words: helminthes, gastrointestinal, goat, Mantha

Introduction:

The grazing animals naturally suffering from different parasites and pathogens in overall world and specially gastrointestinal helminthes are putting pressure to control and ultimately economical losses are taking place in agriculture field. Parasitic manifestation is one of the major problem in the management and a growing concerned for the conservation of endanger animal species. As we know that domestic goat (capra hircus) strengthening the national economy from poor to higher and fulfilling the demands of food as with exceeding the population. The overall economical development of rural and hilly region of mantha could not have achieved by neglecting the development of agriculture facilities for livestock specially domestic. In connection with this consistently invading the helminthes parasites the production of goats. As the younger goats having low resistance power hence they being the victim of various disease of helminthes and various pathogens consequently they are dying before attaining the maturity or fully growth. The majority of the intestinal worms live as endoparasites in the interior of the body of their host. They often residing in the various part or appendages of host. Though certain verities such as the monogenetic trematode are to be found upon the body surface, in hollow organs which are readily accessible from the exterior during the grazing the oral cavity, urinary bladder. In this study report the author has tried to find out the helminthes manifestation in goats, as goat meat is highly demanded food source is being observed overall world.

Material & Methods:

From June 2019 to June 2020 the total 298 intestine of goat were collected from the slaughter house which present in mantha. After dissecting and examined the roundworms were fixed in hot 70% alcohol and then was preserved in 70% alcohol and glycerin. Afterward roundworms was cleaned by lactophenol. While as
cestode & trematodes were washed by physiological saline and then it was fixed in Cornoy’s fixative and then kept in the 70% alcohol. After that they were allowed to processed for permanent mounts in DPX.

Results & Discussion:

The total 293 viscera were examined of goats in which the biodiversity of helminth is founded which is tabulated in the table no.1

<table>
<thead>
<tr>
<th>Helminthes name</th>
<th>Site location</th>
<th>Quantity in goats/%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ascaris lumricoides</td>
<td>Large intestine</td>
<td>24</td>
</tr>
<tr>
<td>Paramphistomium</td>
<td>stomach</td>
<td>21</td>
</tr>
<tr>
<td>Oesophagostomum</td>
<td>Large intestine</td>
<td>25</td>
</tr>
<tr>
<td>Trichuris</td>
<td>Large intestine</td>
<td>39</td>
</tr>
<tr>
<td>Dicrocoellum</td>
<td>Small intestine</td>
<td>30</td>
</tr>
<tr>
<td>Fasciola hepatica</td>
<td>Stomach</td>
<td>31</td>
</tr>
<tr>
<td>Strongyloides</td>
<td>Small intestine</td>
<td>17</td>
</tr>
<tr>
<td>Monezia</td>
<td>Large intestine</td>
<td>16</td>
</tr>
<tr>
<td>Avetillina</td>
<td>Large intestine</td>
<td>21</td>
</tr>
<tr>
<td>Haemonchus</td>
<td>Small intestine</td>
<td>41</td>
</tr>
<tr>
<td>Nematodirus</td>
<td>Stomach</td>
<td>28</td>
</tr>
</tbody>
</table>

Graph-1:

Helminthes prevalence

![Graph showing helminthes prevalence](image)
24 Ascaris lumbricoides which was found in the large intestine of host of goat, 21 Paramphistomium located in the stomach of goat, 25 Oesophagostomum were investigated in large intestine of host, 39 Trichuris was detected in the large intestine of goat, 30 Dicrocoelium were collected from small intestine of goat, 31 Fasciola hepatica was collected from the stomach of host, 17 Strongyloides seen in the small intestine of the goat, 16 Monezia was observed in the large intestine of host, 21 Avetillina were collected from large intestine, 41 Haemonchus detected in the small intestine of host in goat and 28 Nematodirus were collected from the stomach of host. An epidemiology and pathogenicity forms the core edifice of prevention and control of parasitic disease can be constructed. The above tabulated data and graphical form shows the prevalence of helminthes parasites in the different parts of host of goat which highly affecting the production of meats and enforcing unrecoverable economic losses in mantha region.

Conclusion:

The present study report is enough to understand the epidemiology of helminthes parasites in capra hircus (goat) of Mantha ground, this information can be helpful for planning, control, prevention, awareness and prophylaxis of helminthes parasites in the present area.

Acknowledgement:

The research investigator is thankfully acknowledging the financial assistance of the “Minor Research Project Promoting Scheme” under the Dr. B.A.M.U. Aurangabad who are trying to promote / encourage for research activities for emerging teachers. Author is also thankful to head of institute Dr. Bharat Khandare Sir, the Principal Of Swami Vivekanand Senior College Mantha who is always with us to technical support, guidance during the present investigation.

References:


