

Syndrome “Been Lying” on Cows’ Farms in Prizren, Kosovo		Healthcare
		Key words: “Downer” cow syndrome, incidence, age, breed, season.

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Abstract
<p style="text-align: center;">Downer Cow Syndrome (Downer cow) is increasingly appearing as pathology present in the cows of dairy farms. Reported incidence in literature of this syndrome in dairy cows is 3.8 – 28 %. The study is focused in clinical monitoring of the Downer Cow Syndrome in cows of farms of Prizren Municipality in Kosovo. This syndrome was found during the period (January 2015 to March 2016) in 30 cattle heads (0.85 %). Most affected cows were they of Frizis breed with 14 cattle heads (49 %), Simental with 7 (23.42 %) and Holshtein with 4 cattle heads (12.85 %). The average age of the Downer Cow Syndrome was 8.6 ± 0.3 years. This syndrome was frequently observed during the winter season with 16 cattle heads (52 %) and summer with 10 heads (28.5 %). From clinical examinations were observed these anomalies: hypocalcemia (20 cows or 69.8 %), luxation of the coxofemoral joint (4 cases or 12.57 %), peripheral nerve damage (5 cases or 17.1%) and in 1 case (2.85%) severe mastitis was found. Out of the total number of cases, in 4 cattle heads (13.14 %) downer cow syndrome was observed before calving and in 26 cases (86.55 %) after calving. In 10 cases (32.21 %) cows died, or had to be slaughtered after 9.4 ± 04 days.</p>

1. Introduction

Cows that didn’t stand up are treated as patients with Down Syndrome. The expression “Down Condition” summarizes clinical picture of the animal’s inability to stand on its feet and usually is referred to the cows that remain such after calving. Today is accepted that a cow is considered as affected by the down syndrome when it is recumbent in sternal position for more than 24 hours and without evidence of a systematic disease. Ongoing recumbent condition and inability to stand up is a basic clinical element for majority of veterinarians when diagnose a cow with this syndrome. “Downer” cows are usually severe clinical cases since majority fail to stand up after several days of medical treatment and for them often should be applied forced culling. “Downer” cow syndrome is a medical veterinarian emergency that in most cases has fatal prognoses. It is reported (Bicalho, R. C. et al.2007b) that 3.8 – 28 % of cases with hypocalcaemia during the period around calving end with “down” syndrome and from them 20 to 67 % end with death or forced slaughter. Cases with “Downer Cows Syndrome”are therapeutic challenge for all veterinarians who deal with such patients, (Sattler N, et al. 1998).

2. Material and Methods

The study was focused on dairy cows of Prizren area in Kosovo, which are breed in farms with over 30 cattle heads. All clinical diagnosed cases with “down” syndrome were studied. Clinical cases were grouped and classified based on the breed, age and months of the year. For this study also were classified cases before or after calving, most common clinical diagnoses and animals’ health outcomes. In the study also were considered average days of the recumbent condition. Obtained data were statistically processed and bellow are showed in tables and charts. The purpose of the study is to record the density of the clinical cases and based on these to continue with more focused direction to find the way and possibility to reduce damages in farms from the “Downer Cows Syndrome”.

3. Results and Discussions

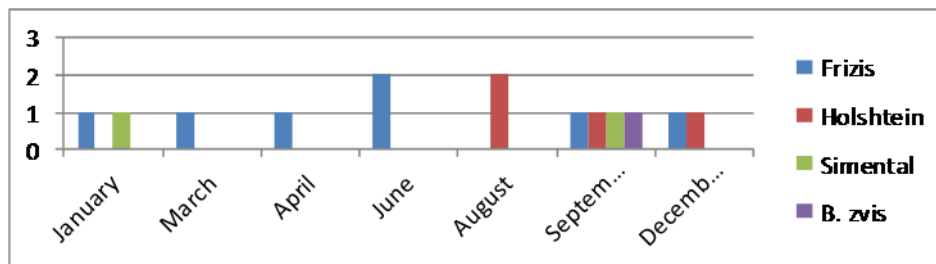
In literature is reported (Amory J.R. et al. 2006; Bicalho, R. C. et al.2007b) 3.8 – 28 % incidence of the “downer” syndrome in dairy cows. Data from the study showed that 30 cattle, or 0.85 % of the breeding cattle in Prizren area of Kosovo were affected by the “Downer” Syndrome. In tables are shown cases encountered by months of the year, breed and age of the affected cattle.

Data are placed also in charts. In chart 1 is given the number of cases of “downer” cow syndrome by breed and months of the year. Results of the study show a very low incidence than the figures of other researchers (Bicalho, R. C. et al. 2007b; Radostits M. et al. 2000). In our opinion it is likely that lowest clinical occurrence is related with the average yield of milk production and distribution of individuals based on the breed in the total population of the dairy cows in the study area.

Table no. 1: Cases of cows with down syndrome.

Muaji	No. of cases	Breed	Age
Janay	7	- 4 Frizis	- 8 years
		- 3 Simental	- 6 years
February	4	- 4. Frizis	- 8 years
March	3	- 3. Frizis	- 11 years
May	3	- 2. Simental	- 7 years
		- 1.Frizis	- 11 years
June	2	- 1. Holshtein	- 8 years
		- 1. Holshtein	- 9 years
September	6	- 2. B. zvis	- 7 years
		- 2. Simental	- 9 years
		- 1. Frizis	- 12 years
		- 1. Holshein	- 7 years
December	5	- 1. Holshtein	- 9 years
		- 1. Frizis	- 8 years

Chart no. 1: Cases of “downer” cow syndrome (by breed, age and months of the year).

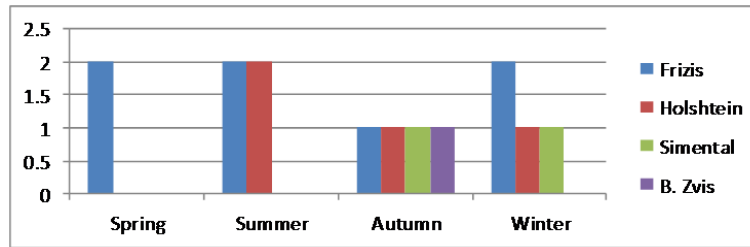


From studied and presented cases in the above tables and charts it appears that most affected by the “Downer” syndrome were cows of Frizis breed with 14 cattle heads (40 %), Simental with 11 heads (31.42 %) and Holshtein with 8 heads (22.85 %). Average age of the “downer” cow syndrome was 8.6 ± 0.3 years.

“Downer” cow syndrome was observed in 5 cattle heads during Spring, in 3 cattle heads during Summer, 6 heads during the Autumn and in 16 cattle heads during the Winter. Most often this syndrome in cows occurred during the winter, with 16 cattle heads (40 %) and autumn with 6 cattle heads (20 %). After grouping and processing

of data, the incidence of the “downer” cow syndrome in the farms of the study area resulted as in bellow chart with no. 2.

Chart no. 2: Cases of “downer” cow syndrome (by breed and season of the year).



Our data correspond to those of other researchers, (Bicalho, R. C. et al.2007b; Goff J. P. et al. 1995, 1997; Ceroni V. e bp. 2006), which stress out that the highest incidence of the “downer” syndrome in cows (39 %) was observed during the three coldest months of the years; December, January and February.

From clinical examination most common diagnosis were found hypocalcaemia (20 cows or 69.8 %), luxation of the coxofemoral joint (4 cases or 12.57 %), peripheral nerve damage (5 cases or 17.1 %) and in 1 case (2.75 %) severe mastitis, table 3.

Table no. 2: Most common diagnoses found for the cause of the “downer” syndrome.

Most common clinical diagnoses for the “downer” syndrome in cows									
Hypocalcaemia		Nerve damage		Fractures		Coxofemoral luxation		Other	
Cattle	%	Cattle	%	Cattle	%	Cattle	%	Cattle	%
20	68.8	5	19.2	2	9.1	2	9.1	1	4.6

In the used literature we couldn’t find data to compare with these figures. “Downer” cow syndrome mostly was found after calving (26 cases or 82.85 %). Before calving syndrome was found in 4 cases or 18.14 %, table 3.

Table no. 3: Cases with down syndrome in relation to the calving period and its prognosis

Cases filed									
Before calving		After calving		Days in recumbence	Cured		Damaged		
Cattle	%	Cattle	%	average	Cattle	%	Cattle	%	
4	14.28	26	85.71	8.6± 0.3	20	71.4	10	28.5	

Based on the data from the literature (Sielman E.S. et al. 1997; Sattler N, et al. 1998), nearly 6 % of cases occur before calving. Approximately 58 % of cases occur within first 24 hours after calving and approximately 37 % within 100 days after calving.

From our data it appears that in 71.4 % of cases results were positive and cows were clinically cured. Results were negative in 28.5 % of cases and cows were slaughtered or died. Average recumbence for sick cows was 8.6 days. Data from literature agree that approximately 30 % of cows with “downer” syndrome die and nearly 32 % of them have to be slaughtered.

4. Conclusions

- “Downer” syndrome is present in 0.87 % of the cows that are breed in farms of Prizren area in Kosovo.
- Most affected from the “downer” syndrome are cows of breed Frizis (49 %), Simental (23.42 %) and Holshtein (12.85 %).
- Average age of the cows with “downer” syndrome is 8.6 ± 0.3 years.
- The “downer” syndrome in cows most often occurs during winter months (49 %) and summer (28.5 %).
- Most clinical diagnostic elements for the “Downer Cows Syndrome” in cows are hypocacaemia (68.8 %), luxation of the coxofemoral joint (8.57 %) and peripheric nerve damage (19.2 %).
- “Downer Cows Syndrome” in most of the cases occurs after calving (85.71 %).
- With cautious treatment, approximately 71.4 % of cases can be clinically recovered of cows with “downer” syndrome.

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