

# Signs and Prognosis of Male Cattle with Urethral Occlusion

S. Gronau, DMV; G. Rademacher, DMV; W. Klee, DMV  
University of Munich, Oberschleissheim, Germany

## Introduction

The causes for disturbances of emptying of the urinary bladder can be either neurogenic or mechanical. Among the latter, large empyemata ("abscesses") of the urachus (which inhibit emptying of the bladder), and reductions of urethral lumen (occlusions) are more common than obstruction of the bladder, at least among patients of our clinic. Urethral occlusions can have luminal (obstruction or stricture) or extra-luminal (compression stenosis, e.g. by a hematoma of the penis, or malformations) causes. Urethral obstruction (i.e. partial or complete blockage of the urethral lumen from within) is usually caused by urinary calculi. As there are other causes for urethral obstruction which differ from obstructive urolithiasis both in signs and prognosis, a prospective study was undertaken with the objective to create a detailed description of the clinical signs in cattle with urethral occlusion and to define prognostic indicators.

## Materials and Methods

A total of 126 cattle one month to two years of age were enrolled. Either their history or clinical examination at admission suggested urethral occlusion. A surgical procedure developed in our clinic was used. Prognosis was evaluated on the basis of clinical, laboratory and postmortem findings, as well as on the subsequent outcome in survivors. The exact cause of the occlusion was determined by postmortem examination in non-survivors.

## Results

Initially a saw-horse stance, agitation and colic were prominent clinical signs, whereas animals in advanced stages became weak and recumbent. Some of them did so after a transient period of apparent improvement of their general condition. Cattle with concomitant chronic purulent inflammatory processes (of the urinary tract) showed distinctly depressed behaviour. In addition, these animals were mostly in a poor nutritional state and had a dull or shaggy hair coat. Cure rates for cattle with uncomplicated urethral occlusion and those with complications (subcutaneous urine infiltration or abdominal urine accumulation, either with or without evidence of inflammatory processes varied significantly.

## Significance

The two most important factors influencing outcome are the duration of the illness (with concomitant increased likelihood of serious complications), and the presence or absence of inflammatory processes. Therefore, the following clinical approach for a male bovine failing to pass urine would appear to be the most reasonable: operate on only those animals in which inflammatory processes can be ruled out by thorough clinical examination (including ultrasound, if available and indicated) with as much certainty as possible, and euthanize all others.