



Study of the Successful Treatment of Urinary Tract Infection in a Five-Year-Old Dog Using Polyherbal Formulation

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Abstract

A five-year-old dog was treated for a urinary tract infection (UTI) at a pet clinic in Bengaluru. The pet had a history of bed urination and was accustomed to eating chicken rice and egg rice. After treatment with a polyherbal formulation for 5 days, the pet's intermittent urination on the bed improved. Thus, the polyherbal formulation containing Pashanabheda and Shilapushpa was effective in treating the pet's condition.

Keywords: Polyherbal Formulation; Urinary Tract Infection; Pashanabheda; Shilapushpa

Introduction

Bacterial UTIs affect approximately 14% of dogs, with a predominance in females (26.60%). These UTIs are two types: simple uncomplicated UTIs and complicated UTIs. Simple uncomplicated UTIs are caused by irregular bacterial infections, while complicated UTIs occur due to anatomic or functional abnormalities or comorbidities [1,2]. UTIs are generally caused by *Escherichia coli*, gram-positive cocci, *Proteus* spp., *Klebsiella* spp., *Pasteurella* spp., *Mycoplasma* spp., *Enterobacter* spp., and *Pseudomonas* spp [3]. Herbal medicines, such as the "Pashanabheda" group of plants, have been used in India to treat urinary stones and other infections [4,5]. A polyherbal formulation, Nefrotec® DS tablet, has been developed by the Himalaya Wellness Company, Makali, Bengaluru, India, to prevent the recurrence of UTIs due to its antibacterial properties.

Case presentation, clinical examination, treatment, and follow-up

A five-year-old dog from Bengaluru, Karnataka, was brought to a pet clinic (Figure) with intermittent urination. The dog was fed a regular diet of chicken rice and egg rice. The dog had a normal appetite and was found to be active and alert.



Figure 1: Female mongrel dog 5 years old named Julie presented to the pet clinic.

The pet was prescribed polyherbal formulation tablets twice daily for 15 consecutive days or until complete recovery was achieved. The owner was advised to feed the dog clean food and provide fresh water and *libitum*. The dog's intermittent urination on the bed was alleviated within 5 consecutive days of treatment. The owner was instructed to present their pet for daily follow-ups.

Medicinal plants had a vital role in the ancient conventional medicine system, and until recently, plants were the cheapest and readily available source of pharmaceuticals for a vast majority of the world's population [6]. In this case study, the clinical feature of intermittent bed urination was characterized as a simple, uncomplicated UTI and was relieved after 5 days of therapy with a polyherbal formulation. The particular herbal constituents in the polyherbal formulation may have contributed to these findings.

According to the literature, the plant extract from the primary rhizome of Pashanabheda (*Bergenia ligulata*) is known to be used to treat kidney-related illnesses [7,8]. Furthermore, Agnihotri *et al.* demonstrated the antibacterial activity of *B. ligulata* against numerous pathogenic bacterial strains and attributed this activity to its two important phytochemicals, polyphenols and flavonoids [9]. Furthermore, another component in the polyherbal formulation, Shilapushpa (*Didymocarpus pedicellatus*), is widely known to promote urinary tract health [10].

Conclusion

This case study suggests that a polyherbal formulation containing Pashanabheda and Shilapushpa can effectively treat simple, uncomplicated UTIs in dogs without conventional modern medication.

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