



# Therapeutic Management of Cutaneous Form of Pigeon Pox in Coimbatore District of Tamil Nadu

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## Abstract

*Five 2 to 3-week-old pigeons were brought into Veterinary University Training and Research Centre, Saravanampatty, Coimbatore with the history of not taking feed, cutaneous lesions and no history of vaccination. After observation for the presence of cutaneous yellowish pox nodules and thorough external clinical examination, the treatment was started for cutaneous form of avipox infection in pigeons. Therapeutic management of this condition by Acyclovir, Azithromycin, Vitamin A supplement and external application of neem leaves with turmeric paste was carried out. All the affected pigeons recovered after the first week of treatment.*

**Keywords:** Acyclovir, Azithromycin, Cutaneous Form of Pigeon Pox, Therapeutic Management



## Introduction

Avian pox virus infection frequently occurs in domestic poultry, pigeons and canaries (Mayahi *et al.* 2010). Pigeon pox infection is caused by the pigeon pox virus in the genus *Avipox*. Pigeon pox is a slowly developing disease resulting in morbidity and mortality among all age groups and sexes. It is generally exhibited in two forms, viz. cutaneous (dry-discrete scabby lesions on unfeathered parts of the body, especially the beak and eyelids) and diphtheritic (wet-fibronecrotic diphtheritic lesions in the oropharynx). The Pigeon poxvirus is mainly transmitted by direct contact through fighting, feather picking or indirectly by mosquito's bites (Doneley, 2006). Though it is a self-limiting disease, the disease may be complicated with secondary bacterial infection, parasitism and poor body condition (Singh *et al.*, 1990). The present communication reports about the cutaneous form of pox in pigeons and its therapeutic management.

## Case History and Observations

During January 2020, five local breed pigeons which were reared in boxes as pets as well as for race purpose were brought to Veterinary University Training and Research Centre, Saravanampatty, Coimbatore with the history of not taking feed and cutaneous lesions. The owner also reported that the adult pigeons appeared normal while the skin lesions were mainly seen in young pigeons with the age group of 2 to 3 weeks old. Around 10 young pigeons out of 120 of pigeons died over a period of 10 to 12 days. The pigeons were not vaccinated against any infectious diseases. Mortality was 8.3 per cent. On external examination they were found dull, depressed, dehydrated and emaciated with ruffled feathers. Blepharitis, conjunctivitis, ocular discharges, several coalescing, round, yellowish, rough and firm nodules were found at the eyelids, beak and the corner of the mouth. The cutaneous lesions were suggestive of pigeon pox (Fig. 1).



**Figure 1:** Pigeon showing clinical signs of pigeon pox - yellowish crust/nodules on and around the beak and eye

## Treatment and Discussion

Immediately after external clinical examination the affected pigeons were separated from healthy flock. Disinfection of the pigeon pens was carried out with 1 per cent sodium hypochlorite. Pigeons were orally administered with Acyclovir @ 80 mg/kg every 8 hr for 8 to 10 days. To prevent secondary bacterial infection, Azithromycin @ 20 mg/kg body weight was administered orally twice a day. Vitamin A supplementation was carried out for 10 to 12 days and turmeric with neem leaves paste was applied on cutaneous lesions. No mortality was recorded after the start of treatment and the skin lesions started to disappear after first week of treatment (Fig. 2). The farmer was also advised to vaccinate the pigeons with live pigeon pox vaccine along with implementation of proper hygienic practices in future. In the present study cutaneous form of pox in pigeons characterized by small, focal, yellowish nodular lesions, mainly on the eyelids, beak and corner of the mouth is reported. The clinical signs observed in the present study were similar to Hemanth *et al.* (2014) who also reported the cutaneous form of avian pox in pigeons in Andhra Pradesh. Jan *et al.* (2017) reported concurrent occurrence of both dry and wet form of pox in pigeons but in this investigation dry form was reported. In this investigation, all the affected pigeons responded to treatment with Acyclovir, Azithromycin and vitamin A supplementation and external application of neem leaves and turmeric paste. Oral administration of Acyclovir @ 80 mg/kg every 6 hr for 10 days in canaries was used to treat Canary pox (Mayahi *et al.*, 2010). Similarly, Sudhakara and Sivajothi (2018) treated the cutaneous form of pox in pigeons with Azithromycin (20mg/kg body weight), oral multi-vitamin syrup and liver tonic supplementation for two weeks and

topical application of Povidone iodine ointment on the skin lesions. This study also correlated with Vinothraj *et al.* (2019) who used turmeric powder mixed with neem paste for skin lesions of desi chicken affected with fowl pox.



**Figure 2:** Pigeons showing disappearance of cutaneous pigeon pox lesions after therapy

## Conclusion

The present case report discusses the therapeutic management of cutaneous form of pox in pigeons based on external clinical examination. Oral administration of Acyclovir, Azithromycin, Vitamin A supplement along with external application of neem leaves and turmeric paste was effective for treatment of dry form of avipox infection in pigeons.

## Conflict of Interests

There is no conflict of interest.

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