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## INCIDENCE OF PARAMYXOVIRUSES ANTIBODIES IN PIGEONS FROM EGYPT

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### تواجد الاجسام المناعية ضد فيروسات الباراميكزو في الحمام المصري

سوزان المهدى

أجرى مسحاً سيرولوجياً للتعرف على مدى الإصابة بفيروسات الباراميكزو عترات ٢-، ٣-، ٤-، ٧- فى مائة عينة مصل حمام مصرى مجمعه من أماكن مختلفه فى مصر واختبرت باختبارات تثبيط التلازن الدموى، اختبار تعادل المصل واختبار ترسيب الاجار الهلامى .  
ووجد ان جميع عينات المصل خاليه من الاجسام المناعيه لهذه العترات من فيروسات الباراميكزو .

## SUMMARY

This investigation was carried out to study the incidence of paramyxoviruses (PMVs) antibodies in Egyptian pigeons. In serological testing (HI, AGPT and SNT) of 100 pigeon serum samples from different districts of Egypt the results revealed that all collected serum samples were negative to PMV- 2, - 3, - 4 and - 7 serotypes.

**Keywords:** Paramyxovirus antibodies, Pigeons, Egypt.

## INTRODUCTION

The first isolation and identification of PMV, other than NDV (Newcastle Disease Virus), in pigeon was carried out by KIDA and YANAGAWA (1979) in Japan.

PMVs, other than NDV, in pigeon had been known to induce some disease conditions including nervous symptoms (KALETA *et al.*, 1985 and MANGAT *et al.*, 1988), diarrhoea (SCHUSSER *et al.*, 1985 and MULLER *et al.*, 1985) as well as egg drop (KALETA *et al.*, 1985; SCHUSSER *et al.*, 1985 and KISSLING and HENK, 1987).

Many investigators reported the presence of antibodies against PMVs in pigeons. SMIT and RONDHUIS (1976) reported that Japanese pigeons did not show clinical signs of PMV - 3 infection but produced an immune response. ALEXANDER *et al.* (1981) detected PMV-7 antibodies from Turtal pigeon. GOUGH and ALEXANDER (1983) reported the Turk's pigeon had low levels of otaru / 76 antibodies. RICHLER (1983) diagnosed a case of PMV infection in race pigeons in Germany. CERNIK *et al.* (1985) reported in HI tests on samples collected from 447 racing and free-living pigeons in 11 district of Czechoslovakia between August (1983) and March (1984) were negative to PMV - 2 and - 9. ALEXANDER *et al.* (1991) isolated PMV-7 from pigeons, also detected high level of HI antibodies and at least one line of identity in immune double diffusion tests with PMV-7.

The present work was designated to carry out the level of PMVs antibodies in racing pigeon sera collected from different districts of Egypt.

MATERIAL AND METHODS

**A- MATERIAL:**

**1- Serum Samples:**

100 pigeon blood samples for serum collection were taken individually in dry, sterilized tubes. The tubes were stoppered and left in a horizontal position at 37°C for one hour and then left at 4°C for another one hour, serum samples were separated in small vials and inactivated at 56°C for 1/2 hour and kept at -20°C till used.

**2- Viral Strains:**

The paramyxovirus serotypes- 2, - 3, - 4 and - 7 obtained from SUZAN (1987).

**3- Empryonated Chicken Eggs (ECE):**

Commercial hatching eggs, 9 to 11 day old, were used for titration of PMV serotypes as well as SNT.

**B- METHODS:**

**1- Hemagglutination Inhibition Test (HI):**

HI was carried out according to the standard method reported by ANON (1963).

**2- Agar Gel Precipitation Test (AGPT):**

The microtechnique of AGPT was used according to WOERNLE (1959).

**3-Serum Neutralization Test (SNT):**

Virus dilution constant serum according to method of examining poultry biologics (ANON, 1971).

RESULTS AND DISCUSSION

All collected sera of 100 individual pigeons from different Egyptian districts were free from antibodies against examined viral PMV- 2, - 3, - 4 and - 7 strains.

These results were agreed with CERNIK *et al.* (1985) who reported in HI test on pigeon serum samples was negative to PMV -2 and - 9 serotypes, while they disagreed with ALEXANDER *et al.* (1991).

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