For the first time in this Province a serious and fatal outbreak of Aspergillosis in fowls has been encountered with during 1943. The disease was first brought to the notice of the author by Mr. G. D. Pani, Poultry Investigation Officer, and a systematic study of the disease has been taken up.

A. C. Mayer first observed the disease in 1815 in the bronchi and air-sacs of jay. Henry Grey has also mentioned that the disease is common in Great Britain. Thom and Church report that *Aspergillus fumigatus* caused death in birds in zoological gardens in different countries. Since then several other writers have mentioned cases of affection in different wild species of birds and domestic poultry. However, as far as known to the author this disease has not so far been reported from anywhere else in this country.

The outbreak of Aspergillosis was first detected in some fowls at Dhamtari during the end of May 1943. Severe and fatal outbreaks of the disease were later on reported from Government Poultry Farm, Telankheri, Nagpur, in chickens of 4 to 6 months old and practically all the young birds died during June, July and August. The disease was again reported in an epidemic form from Raipur, Khandwa, Chhindwara, Seoni and several other places in the Province. It was also observed that Rhode Island Red were more susceptible to the disease than Deshi or Black Minorca; White Leghorns being the most resistant of all the breeds. Mortality in chickens was very much higher than in adults.

During the course of investigation it was observed that in severe cases of infection the birds die overnight though apparently healthy the previous day. In less acute case the sick birds became dull and droopy with rise of body temperature, preferred darkness to light, lost appetite, and developed paralysis of the legs and wings. The birds exhibit frequent sneezing and coughing with rattle in the throat and gasp for breath. There is slimy discharge from nose and beak; the eyelids swell and have cheesy deposits. In later stages of the disease the bird develops diarrhoea and the feathers
at the vent are soiled. Such birds waste in condition and generally die within a week. In other less severe cases of infection the birds develop the above symptoms gradually and die within three to four weeks due to exhaustion.

The other common features which were observed in the diseased birds were paleness of body flesh, greyish necrotic growths and lumps of cheesy material in the lungs and air-sacs. In some cases bluish-green necrotic patches were found in the lungs while in others blood clots were noted when cut open, though appeared normal externally. Trachea and bronchi may show hemorrhage along with cheesy deposits. The lumen of infected oesophagus was studded with greyish nodules resembling vitamin ‘A’ deficiency lesions. The proventriculus may show hemorrhage patches along with bluish-green growth at the junction of the proventriculus to the extension of the crop. The infected intestines were thickened. It was common to find both the caecal pouches filled with cheesy mass with haemorrhage of mucus membrane. Cheesy deposits were prominent all over the abdominal cavity when peritonium was infected. Kidneys, ovaries and testes when infected were considerably enlarged and showed greyish or bluish-green deposits. Congestion of heart and haemorrhages in bone-marrow and brain was of common occurrence.

Under sterile conditions lesions from all the infected organs were cultured on broth, rice-mesh agar and Sabouraud’s media and practically in every case pure cultures of *Aspergillus* sp. were obtained. In several cases heart and cutaneous blood, when cultured on starch agar, gave a luxuriant growth of *Aspergillus* sp. within ten to twenty days. The fungus when cultured on slightly acidic medium is bluish-green in colour but it forms brown colonies on alkaline medium.

To prove the pathogenicity pure cultures of the isolated *Aspergillus* sp. were obtained and the disease was artificially transmitted to the healthy fowls in the following three ways: (1) spores were mixed with grain and the birds were fed on them; (2) spores were insuflated into the nostrils of healthy birds; (3) sub-cutaneous injections were carried out on the birds by a spore suspension in sterile distilled water. In the first two cases the experimental birds died on the 26th and 28th day respectively while by the third method death took place on the 11th day. Typical Aspergillosis symptoms were observed in all the experimental birds and on reisolation the same species of *Aspergillus* was obtained from the lesions.

A general study of the pathogen was taken up. The fungal colonies on rice-mesh agar are velvety to felted floccose, spreading, yellowish-green