

### **Conclusions**

Complications and side effects of AMBT in patients with first time diagnosed pulmonary tuberculosis among Hepatitis C and HIV coinfecting patients is considered one of the most important reason for insufficient effectiveness of polychemotherapy since the use of AMBT often leads to an increase in the biochemical activity of the hepatitis, deterioration of clinical and laboratory parameters and manifestation of clinical (dyspepsia, fullness, abdominal pain, jaundice, hepatomegaly and itching) and laboratory (bilirubin, ALT, AST and ALP elevation) symptoms and signs. Therefore, it often involves not only changing the treatment regimen but also in many cases cancelling the most effective against Mycobacterium tuberculosis drugs. In conclusion, the problem of early diagnosis, prevention, correction and treatment of drug and toxic liver damage remains the most relevant problem in modern phthisiology, especially when combined in HIV and viral hepatitis coinfecting patients.

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## **APOLLO DISEASE IN NIGERIA: EPIDEMIOLOGY AND LOCAL TREATMENT**

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### **Introduction**

Apollo is an acute and sudden inflammation of the conjunctiva. Owing to limited investigative facilities the agent causing epidemic acute hemorrhagic conjunctivitis (AHC) which hit Nigeria between September and December 1969 was not determined. Legend has it that the disease became more severe in Nigeria at end of year after the United States sent man to the moon in the Apollo spacecraft in 1969. And since then, come December every year, many Nigerians suffer from the eye affliction during the Christmas and New Year period when the cold, dry harmattan wind blows at full throttle [1]. Affects almost 80 % of the population and affects all age groups but more in children as it is airborne and spread quickly. It is caused by adenoviruses type 8 & 19 (it is markedly contagious) with incubation period after infection (8 days). The virus shed from the inflamed eye for 2–3 weeks. It is highly contagious and patients may be infectious for up to 11 days after onset [2].

### **Aim**

To describe the epidemiology and local treatment of the Apollo conjunctivitis in Nigeria.

### **Material and Methods**

Review of the available literature concerning AHC in West Africa.

### **Results and Discussion**

A descriptive hospital-based study of patients was provided at Adoose Specialist Hospital, Jos the capital city of Plateau State in North Central Nigeria with clinical diagnosis of AHC. All available records of patients who presented to the hospital for the first time with

clinical diagnosis of AHC at the hospital from 2000 to 2009 were reviewed. The patients' demographic information extracted included date of presentation to the hospital, address, age, sex, occupation and presenting complaints and duration of disease and previous drug administration. Each patient was given a complete ocular and general medical examination including palpation for enlarged lymph nodes. Conjunctival swabs from 71 patients were taken for virus studies. Fluorescein staining was positive in 5 patients with associated superficial corneal ulcerations. Bacterial cultures yielded *Staphylococcus albus* in 11 out of 71 conjunctival swabs, representing approximately 15 % of the total swabs, the 60 remaining specimens yielded no bacterial growths. Conjunctival smears stained with Gram and Giemsa stains showed a preponderance of lymphocytes among cellular elements seen. The serological tests yielded a clue as to the causative agent for the AHC. Of the 2 paired sera available for testing from AHC patients one showed a greater than 4-fold rise ( $< 16/256$ ) to enterovirus 70. The diagnosis of AHC was made based on the serological tests and the history of itching and burning, redness or brownness, lacrimation, photophobia and a mucinous, ropy discharge and or clinical presence of papillae in the lower or upper tarsal conjunctiva, and also considering the season of the year. Particularly in the city of Kaduna, clinical studies were carried out on two groups of patients with AHC during an epidemic in 1985 in Northern Nigeria. Group 1 consisted of 99 students attending a girls' boarding school, group 2 of 200 patients selected randomly from 1000 examined at the local clinic. Moderate to severe hyperemia and papillary responses were present in the palpebral conjunctiva of all patients, and 234 (66%) had subconjunctival hemorrhages. Transient superficial punctate keratitis was noted in over 60% of patients. A transient flare suggestive of a low grade iritis was seen in five patients. No neurological disorders were noted. Serological studies were carried out on patients from group 2. Fifteen paired and 20 single serum samples were titrated against adenovirus type 4 (Ad-4) and enterovirus type 70 (EV-70). Two pairs of sera showed a 4-fold rise in antibody levels to EV-70, whereas the antibody titres to EV-70 in the rest of the sera ranged from 1:20 (no antibody) to 1:160. None of the paired serum samples showed a 4-fold rise in antibody levels to adenovirus. The results of clinical studies and serological findings support EV-70 as a probable cause of AHC in Nigeria. Following the above studies, it is observed that the main causative agent for Apollo at different times in these locations is EV-70, diagnosed through serological tests. As recorded in Jos, it is important to always carry out a wide range of laboratory investigations to exclude bacteria and other possible causative factors of the disease. Unlike the situation in Lagos, early diagnosis of AHC and proper management is highly necessary to prevent the complications that follow, such as blindness. Epidemiology. A total of 1 067 981 conjunctivitis cases were reported to the surveillance system for 2011; there was an increase in the number of cases in epidemiologic weeks 6–26 (Harmattan season) versus previous years [3]. A recent epidemic of acute hemorrhagic conjunctivitis in Dar es Salaam showed again the importance of developing a strong infectious diseases epidemiological surveillance network which is effective in minimizing disease outbreaks. Treatment. In some cases, the immune system is strong enough to get rid of Apollo within one to three weeks as the infection is self-limiting, hence there is no cure just conservative treatment, but failure to follow hygienic conditions can make it a critical condition for the patient. The local treatments most Nigerians use some have been proven to be harmful and some useful but not everyone is aware of the effects of some of the chosen treatment as patient would do anything to get better when infected: 1) Honey; 2) Urine; 3) Breast milk; 4) Sugar water; 5) Aloe Vera. Drug treatment: Commonly used drugs: cetirizine hydrochloride, erythromycin orally. Supportive treatment for amelioration of symptoms is the only treatment required and includes: cold compresses, sun glasses to decrease glare and eye contact with the sun, decongestant and lubricant tear drops to decrease discomfort (example: eyetaren), topical antibiotics; to prevent secondary bacterial infections [4].

Prevention. During the epidemic of AHC, the main measures are: 1) personal hygiene: avoid rubbing the eyes with dirty hands, the implementation of washbasin towels; 2) Public health: to the swimming pool, bathroom, and barber shop. Information about acute hemorrhagic conjunctivitis should be provided to patients and the communities, in order to prevent undue alarm, discourage home remedies and control the spread of this highly contagious disease [5].

### **Conclusions**

The 1969 and 1981 epidemics that occurred in Lagos State during dry weather (September-January) when dry, dusty winds blow south-westerly from the Sahara Desert dispersing dirt and infected droplets and then spread across the 36 states in Nigeria, today its seasonal occurrence can be used to differentiate it from other conjunctivitis this outbreak caused by Enterovirus 70 (EV70) together with a Coxsackievirus A24 (CVA24v) variant, which are the major etiological agents involved in AHC outbreaks worldwide. The dust causes irritation of the eyes and possibly impairs the integrity of the conjunctiva. AHC, being an annual occurrence which affects hundreds of thousands of people in Nigeria every year, because of the ease of spread - from person to person, it requires prompt treatment. Once an individual is affected, he or she is advised to stay away from crowded areas etc. to limit the person to person infection. The temporal change in activities of the infected individual, leads to decrease productivity and visual function with severe complications if not treated properly.

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## **АНАЛИЗ АНТИБИОТИКОРЕЗИСТЕНТНОСТИ ШТАММОВ *ESCHERICHIA COLI*, ВЫДЕЛЕННЫХ ИЗ МОЧИ ПАЦИЕНТОВ С ИНФЕКЦИЕЙ МОЧЕВЫВОДЯЩИХ ПУТЕЙ**

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### **Введение**

Проблеме мониторинга антибиотикорезистентности клинически значимых микроорганизмов в разных странах мира уделяется пристальное внимание. Систематический анализ уровней чувствительности патогенов к антибактериальным препаратам является частью стратегии сдерживания распространения антибиотикорезистентности возбудителей инфекций, в том числе и инфекций мочевыводящих путей, в условиях лечебно-профилактического учреждения [1–4].