Executive Summary

Pneumonia is an infection that includes fever, muscle ache, coughing, and difficulty in breathing. Pneumonia disease can be firsts noticed in the Greek civilization. In the present situation worldwide, there are a huge number of cases which deals with Pneumonia and many people die because of it. Every year, more than 1 million children die because of Pneumonia. On a global scale, there are several reasons for Pneumonia and many types of treatment methods are there to reduce and stop the spread of Pneumonia. For that several measures are taken from time to time to stop the death rate and save more lives.

The invention of Streptococcus Pneumonia

A type of bacteria that was discovered and it's the major reason for the occurrences of pneumonia, it's known as Streptococcus Pneumonia. In the year 1881 American Microbiologists, George Sternberg and French Microbiologists Louis Pasteur, separately discovered lancet-shaped bacteria in saliva.

They injected the saliva into rabbits and then isolate the elongated diplococci bacteria. They are oval and can be found in pairs. This type of bacteria has a huge potential to cause harm and is found to be the main reason for pneumonia infection in children.

The immune system of anybody can only destroy the Encapsulated bacteria through B cell production of antibodies.

In the 19th century the usage of antibiotics as a remedy for pneumonia. Antibiotics we discovered like penicillin resistive to Streptococcus pneumonia, which was a great concern in the world medical forum.

Antibiotics are of the strongest form, but other than that many pneumonia-causing pathogens in the hospitals are resistive to all bacterias.

In the year 1977, a vaccine was discovered to protect against bacterial pneumonia known as the pneumococcal polysaccharide vaccine (PPV). But it protects against a limited number of cases of Streptococcal pneumonia.

In the year 2000, a new type of vaccine was discovered pneumococcal conjugate vaccine (PCV), which gives protection against serotypes, which includes many serotype strains which were protective to antibiotics.

INTRODUCTION

Pneumonia is a respiratory infection that affects the inner body parts, especially the lungs. Lungs are small bags which is known as alveoli, which get filled when any healthy person inhales and exhales.

When any person has Pneumonia the sacks are filled up with fluid and pus, which makes breathing much more painful and restricts the inhalation of oxygen.

Most of the children suffer and die due to Pneumonia. It's one of the largest causes of death in children in recent times. Pneumonia disease ate up to 740180 kids below the age of 5 in the year 2019, under the age of 5, the major reason of death is Pneumonia which results in around 14%. Pneumonia affects children's families everywhere but mostly it affects the children of Sub-Saharan Africa and South Asia. Children affected due to pneumonia can be protected and treated at low costs, with low medication, and with care.

Pneumonia can be created from fungi, viruses, and bacteria. Pneumonia can be restricted by healthy nutrition, immunization, and different environmental factors. Pneumonia occurred by bacteria can be prevented by antibiotics, but only a few %age children with Pneumonia get the antibiotics they rrequired for a healthy lifestyle.

CAUSES

The main causes of Pneumonia are:-

- Streptococcus pneumonia
- Haemophilus influenzae type b
- respiratory syncytial virus
- Pneumocystis jiroveci

TREATMENT

Pneumonia can be treated with Antibiotics. It can be treated with amoxicillin dispersible tablets. Oral medicines or antibiotics are prescribed in the health center. It can also be diagnosed and treated with inexpensive oral antibiotics by trained community health workers. If any severe cases are found the hospitalizations are prescribed.

DIFFERENTIATING HEALTHY LUNGS AND PNEUMONIA LUNGS

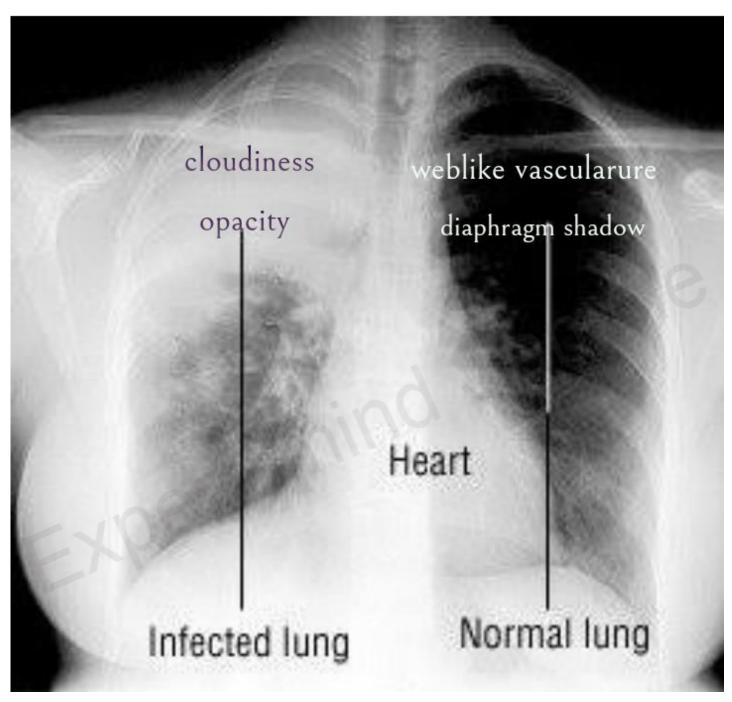


DIAGRAM 1

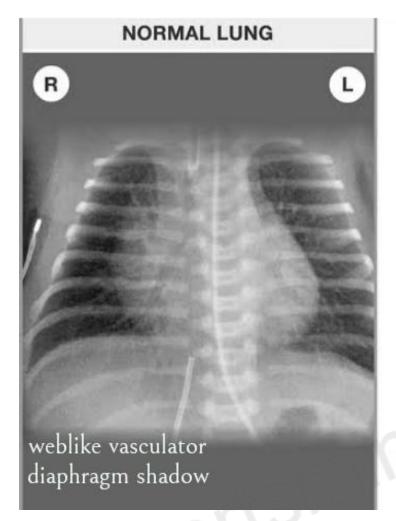
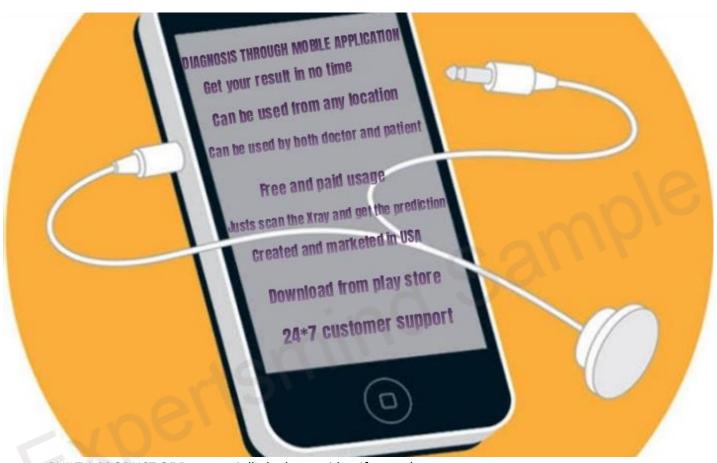




DIAGRAM 2

The above diagram 1 and 2 represent the healthy and Pneumoniatic lungs. Diagram 1 clearly shows the infected lungs on the left hand size and the healthy lung on the right-hand side. The infected lungs include cloudiness and opacity. The heart remains in the middle. The right lung has like vascular structure and it also includes the diaphragm shadow. The cloudiness mainly occurs due to the infected pus and watery lung structure.

Diagram 2 includes the normal lung on the left-hand side and the infected lung on the right-hand side. The major features are written below the diagram. Lungs are shown to be hazy and clouded due to the infection and pus it includes.



BUILT A PRODUCT OF Pneumonia (help doctors identify cases)

There can be many products that can help both the doctors and patients identify cases of Pneumonia. I have shown a product which will be created and marketed by the genuine house of Commerce located in the USA. It's an application that will identify cases of pneumonia within no time with only X-rays uploaded in this app. It can be downloaded from the play store. It will have genuine 24*7 customer care support and easy free as well as paid packages. The user has to upload the Xray reports in the app by clicking on the plus button and wait a few minutes for processing. The results are shown when the red button will blink. It can be used by anybody by creating a swaitingate account for future usage. We will provide diagnostic experts also who will solve any issue in no time and check the genuineness of every result.

The application is developed in Studio 3.1.3 using HTML and Java at the XML and backend. Three major features will be added to the profile of the doctor or patient, the X-ray report analyzer, and reporting in frequency. The user can add the audio file also which will

investigate the breath of the patient. Qualified diagnostic agents will analyze the audio files and sent the reports. An emergency reporting service is also provided which will e-diagnose the patient over the internet.

CONCLUSION

It's very clear from the above paragraph that pneumonia affects kids and elderly people but if it's controlled and maintained well it can be treated. It has killed a lot of children throughout the world and still, it's a major concern for the WHO and other organizations. The government has taken a lot of measures for its stoppage, changing the general lifestyle and increasing the immune system can remove pneumonia forever. A lot of mobile devices, as well as equipment, have been launched which will help the doctors and the patient in identifying the cases of pneumonia and reduce its time to cure.

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