УДК [61+615.1] (043.2)
ББК 5+52.81
А 43
ISBN 978-985-21-1864-4

Dimantha Attanayake, Sathmi Sandanaki Perera

MORHPOLOGICAL FINDINGS IN CHLAMYDIA PNEUMONIAE

Tutor: assistant Vorobyova K.S.
Department of Pathological Anatomy and Forensic Medicine with Advanced Training Course and Retraining
Belarusian State Medical University, Minsk

The genus Chlamydia comprises a group of obligate intracellular bacteria known for causing various infections in humans and animals. These bacteria are unique due to their complex life cycle, which includes distinct developmental stage. Genus include several species among them, Chlamydia pneumoniae stands out. Chlamydia pneumoniae is a common respiratory pathogen that affects individuals of all ages. It is responsible for approximately 5-20% of community-acquired pneumonia cases in both adults and children. This microorganism has also been identified as a potential infectious trigger for asthma. Additionally, recent studies indicate that it may contribute to the development of various chronic diseases, including Atherosclerosis, Alzheimer's disease, Lung cancer. The microorganism can be isolated in cell culture; however, PCR techniques have recently facilitated its detection in tissues and clinical specimens. Autopsy studies of Chlamydia pneumoniae infections reveal several key morphological findings.

Histopathological changes: infected tissues show lymphocyte and plasma cell infiltration, indicating an immune response, along with possible necrotizing inflammation, especially in the lungs. Inclusion bodies: C. pneumoniae can be identified as clusters within the cytoplasm of epithelial cells. Cellular changes: infected epithelial cells may exhibit vacuolization and swelling, with alveolar spaces showing edema and consolidation. Staining techniques: immunohistochemical staining helps detect C. pneumoniae in respiratory epithelium. Organ-specific findings: in the lungs, bronchopneumonia is common, characterized by consolidation and patchy infiltrates, while other organs may show signs of systemic infection.

These findings enhance the understanding of C. pneumoniae's role in respiratory and systemic diseases. Research indicates potential links between C. pneumoniae infection and the exacerbation of chronic diseases, necessitating further investigation. Statistical analyses highlight the ongoing relevance of C. pneumoniae as a significant respiratory pathogen, emphasizing the need for continued monitoring and research to understand its impact on public health.