Comparative Analysis of Surgical Guidelines for Acute Cholecystitis in Asian Countries

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Abstract

Background: Acute cholecystitis is one of the most common surgical emergencies in the world, with some variations and similarities in management across different healthcare systems due to different healthcare infrastructures, economic condition and patient diversity. With time countries developed distinct surgical guidelines that reflect regional expertise and local realities.

Objective: This review aims for systematically compare and analyze the surgical guidelines for acute cholecystitis across major Asian countries, identifying similarities, differences, underlying reasons.

Methods: This analysis is done by examining surgical guidelines, statements, and clinical studies from Japan, South Korea, China, India, Singapore, Taiwan, Thailand, Malaysia, Philippines, Indonesia, and other Asian nations in time frame of 2007 to 2023 and analyzed on the basis of diagnostic criteria, severity assessment, timing of intervention, surgical approaches, antibiotic management, complication handling, and outcomes.

Sources: International databases (PubMed, Embase, Web of Science, Cochrane) and regional databases (CNKI-China, KoreaMed, IndMed, J-Stage-Japan) from 2007-2024.

Results: Initially Asian countries follow Western guidelines. Later, Japan made Tokyo Guidelines and improved it continuously, which influenced China and other Asian countries to develop their own guidelines with regional changes. Laparoscopic cholecystectomy adoption rate from 20% to 95%. Surgical timing vary from early intervention (<48 hours) in Korea to delayed approaches in resource limited country and region. Antibiotic resistance patterns shows variation (ESBL prevalence 5%-85%), affecting antibiotic selection. Mortality rates of severe cholecystitis is 4% to 6% in high resource country and region to 15% to 25% in resource limited areas.

Conclusions:

In terms of infrastructure, technology and safety Japan, Korea, Singapore, Taiwan, and urban China have performed very well due to high economy and political determination. As a result, mortality rates, antibiotic resistance, and the economic impact on patients have remained significantly lower. However, the situation in rural China, India, and other Asian countries is not good due to economic and political factor.

In robotic surgery, Korea is far ahead. Japan, Singapore, and China are making efforts to introduce it, while other countries lag far behind.

Final Statement:

The expertise, technology, and treatment exists and solutions are proven in high economic countries and regions. What is needed is a collective will to prioritize equity and to uphold the principle that geography, politics, and economic status should not determine survival of this treatable surgical condition.

Источники и литература

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Иллюстрации

KEY FINDINGS

Country	Preferred Timing	Laparoscopic	Antibiotic 1st	ERCP Before	Evidence
Japan (TG18)	Early (<72h)	✔ Preferred	Grade III	Recommended	**High**
China	Early (<48h)	✔ Preferred	Grade II–III	Selective	**Moderate**
South Korea	Early (<72h)	✔ Preferred	Mild–Mod.	Selective	**High**
India	Delayed (4–6w)	✔ Preferred	All grades	Selective	**Low–Mod.**
Thailand	Early (<72h)	✔ Preferred	Mod.–Severe	Recommended	**Moderate**
Taiwan	Early (<48h)	✔ Preferred	Grade II–III	Selective	**Moderate**

Рис. : Key finding - Table