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Maximum Tongue Pressure as a Measure of Post-Extubation Swallowing Ability

Ichibayashi R, Honda M, Sekiya H, Yokomuro H, Yoshihara K, Urita Y

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要約 :

Background: Approximately half of all patients requiring mechanical ventilation with endotracheal intubation develop swallowing problems after extubation. Swallowing can be examined in several ways, but the preferred clinical methods are videofluoroscopic examination of swallowing or other imaging methods, which allow visual detection of abnormal swallowing patterns. Unfortunately, these imaging techniques do not allow quantitative analysis. If a device could provide numerical values in evaluating swallowing capability, research could then collect useful data to help determine when to reintroduce oral intake of food and liquids and whether aspiration is likely during such intake. Evidence suggests a relationship between maximum tongue pressure and the ability to swallow correctly. We therefore evaluated changes in tongue pressure over time in patients who had just been extubated and investigated whether significant pressure differences existed between patients who later aspirated and those who did not.

Methods: The participants were 36 patients who had received mechanical ventilation by means of endotracheal intubation. Maximum tongue pressure was measured repeatedly for 1 week after extubation. The values for participants who did and did not subsequently aspirate were then compared.

Results: Post-extubation tongue pressure values were lower than normal in all patients, but they increased over time. However, values for patients who aspirated were significantly lower than those for patients who could swallow normally.

Conclusion: The results suggest that tongue pressure is a useful test of post-extubation swallowing ability and that it can help determine when to restart oral intake of food and liquids and identify aspiration risk.

KEYWORDS: dysphagia, tongue pressure, extubation, aspiration pneumonitis

Profiling of Serum Autoantibodies in Japanese Patients with Hepatocellular Carcinoma

Okada R, Shimada H, Tagawa M, Matsushita K, Otsuka Y, Kuwajima A, Kaneko H

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要約 :

Background: Conventional serum markers frequently yield negative results in the early stages of hepatocellular carcinoma (HCC). Serum IgG autoantibodies to tumor-associated antigens have been reported even in the early stages. However, very little information is available for Japanese patients with HCC. This study aimed to profile serum autoantibodies in Japanese patients with HCC, using enzyme-linked immunosorbent assay (ELISA) systems based on tumor-associated antigens (TAAs)/antigenic fragments.

Methods: Sera were obtained from patients with HCC at stages I (n = 11), II (n = 30), and III (n = 9). In total, 18 serum autoantibodies were detected using ELISA. The TAAs used were RalA, Hsp70, p90, KM-HN-1, Ny-ESO-1, Galectin-1, Sui1, p53, Annexin A2, Prx6, VEGF, c-myc, HCC-22-5, p62, HCA25a, HER2, Hsp40, and Cyclin B1.

Results: The positive rates of autoantibodies against RalA (24%), Hsp70 (22%), and P90 (20%) were the highest. Among 50 patients who showed seropositivity, 40 (80%) showed seropositivity for at least one antibody and 27 (54%) showed seropositivity for two or more antibodies. The positive rates of serum autoantibodies at each stage were as follows: 91% for stage I, 80% for stage II, and 67% for stage III.

Conclusions: We developed ELISA systems to detect autoantibodies and successfully profiled 18 serum autoantibodies in Japanese patients with HCC. As pleural antibody responses were detected even in patients with stage I tumors,

combination assay for these autoantibodies may be useful to detect early-stage HCC. Clinical trial registration number: UMIN 000014530.

KEYWORDS: autoantibodies, hepatocellular carcinoma, enzyme-linked immunosorbent assay, RalA, Hsp70

Indocyanine Green Fluorescence Angiography Aids in Intraoperative Management of an Adult with Ebstein Anomaly

Katayama Y, Ozawa T, Shiono N, Watanabe Y

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要約：

A 51-year-old man who had undergone a modified Carpentier procedure at age 32 years for Ebstein anomaly later developed chronic heart failure due to severe tricuspid regurgitation and atrial flutter with right heart dysfunction. Findings from indocyanine green fluorescence angiography were helpful in avoiding an unnecessary additional procedure of one and one half ventricle repair. At a 6-month follow-up examination, the patient was asymptomatic and had a normal sinus rhythm without administration of an antiarrhythmic agent.

KEYWORDS: congenital heart surgery, adult, intraoperative examination

Aortic Valve Replacement in a Patient with Multiple Myeloma and Cardiac Amyloidosis

(多発性骨髄腫に心アミロイドーシスを合併した大動脈弁狭窄症の1例)

Hara M, Kawasaki M, Tokuhiko K, Niitsu K, Natori K, Watanabe Y

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要約：

造血管器悪性腫瘍を合併した患者に対する心臓手術はリスクが高く、手術適応に関して一定の見解はない。症例は67歳の男性で腎不全精査中に多発性骨髄腫、腎アミロイドーシスと診断、透析導入となった。化学療法後6か月で多発性骨髄腫は完全寛解に至った。その後徐々に透析時の血圧低下を認めるようになり、心エコーで高度大動脈弁狭窄を認め、さらに心アミロイドーシスの合併も疑われた。透析維持が困難となってきたため大動脈弁置換術を施行、術中採取した左室心筋と大動脈弁尖の病理所見においてアミロイド沈着を認め、心アミロイドーシスと確定診断した。合併症なく術後16日目に退院、術後2年が経過し多発性骨髄腫の再燃、増悪を認めず透析通院を継続している。

索引用語：多発性骨髄腫、大動脈弁狭窄症、心アミロイドーシス、大動脈弁置換術 (AVR)、心臓手術
