

From: the Japanese

Proc. ~~Japan~~ Cancer Assoc., 38th Annual Meet. add p. 315, 1979

Russell MW  
6 DEC 1979  
治療 315

Abstr. # (in Engl.)

(Tokyo)  
Sept, 1979

1162 "Inhibition of tumor growth by radiofrequency therapy": Kenji TAZAWA, Ryoichi ABE, Jyuichi SAITO, Takashi SHINBO, Toshio FUJITA, Hiroshi ITO, Masao FUJIMAKI and \*Yoshiaki SAITO (Dept. of Surg., Toyama Med. & Pharmaceut. Univ., Toyama, \* Dept. of Engin., Niigata Univ. Niigata)

We tested the effect of selective heating in a radiofrequency (RF) field in the experimental tumors (both the Sato' lung cancer and AH109A in rats). RF generator was constructed that has an output in excess of 500W at a crystal controlled frequency. The energy is transmitted from the amplifier to an impedance matching circuit. A frequency of 13.59MHz was chosen. RF in the tumors raised the temperature to 5 to 12°C above that of the surrounding tissue. RF therapy produced tissue necrosis or substantial regression of the experimental tumors. Local heating of RF (40--48°C, 20--30 min.) resulted in regression and delay in tumor growth. Complete regression was seen in 7 of 23 rats. After treatment of RF (40--46°C, 10 min.), the increase in tumor growth occasionally occurred.

1164 Protective utility of laminar airflow room for infection of leukemic patient: Katsuto WATANABE, Mitsumoto KOMATSUDA, Tadami NAGAO and Shigeru ARIMORI (Department of Internal Med., School of Med., Tokai Univ., Isehara)

Nineteen patients with leukemia were treated in the laminar airflow room with or without prophylactic antibiotics since 1976. The effect of protective environment on the infectious episodes was compared between the patients treated in the laminar airflow room and nineteen leukemic patients treated in the conventional ward corresponding to age and type of the disease. The number of days febrile and infectious episodes were significantly lower under the protective environment than in the conventional ward. The patients receiving prophylactic antibiotics reduced significantly the percentage of days febrile to total days and the incidence of infections in comparison with the non-antibiotic prophylaxis group in the laminar airflow room. These data have demonstrated statistically significant advantages of treatment with protective environment and antibiotic prophylaxis for prevention of infections. (Supported by a grant from the Ministry of Education, Science and Culture).

1163 小線源による犬実験胃癌の治療の試み: 丸山圭一<sup>1)</sup> 小山靖夫<sup>1)</sup> 大森敬子<sup>1)</sup> 北川俊夫<sup>2)</sup> 牛尾恭輔<sup>3)</sup> 広田映五<sup>3)</sup> 小黒八七郎<sup>4)</sup> 国立がんセンター・病院外科<sup>1)</sup> 放射線治療放射線診断<sup>2)</sup> 研・病理<sup>3)</sup> 内視鏡<sup>4)</sup>

目的: <sup>198</sup>Au-Grainによる小線源を用い、内視鏡下に胃癌の非観血的治療を行なう方法を開発する事を目的とする。  
方法: 動物; ビーグル犬雄2頭。胃癌作成法; MNNG又はENNGを経口的に投与。線源; <sup>198</sup>Au-Grainを0.8×2.5mmの円筒状プラチナ容器に収納。照射法・観察法; <sup>198</sup>Au-Grainは、半減期2.7日、γ線を放射し、プラチナ容器1ヶ当たり5mci相当量を収納。照射量は1mci当り1cmの距離で220radである。上記プラチナ容器を内視鏡下に必要数個病巣に打ち込む。植え込み後、1週間に1回の頻度で内視鏡検査を行ない、照射による変化を照診、写真撮影及び生検によつて追跡した。又プラチナ容器の病巣からの脱落の有無を単純X線撮影により確認した。動物が死亡した場合は、剖検により胃と他臓器を検索した。  
結果: 円筒型の容器は刺入後早期に脱落し、期待の照射量を病巣に与え得なかつた為、生検による癌細胞の変性所見は軽度であつた。そこで鉤状の脱落防止装置を工夫し、治療効果を確認するため開腹下に漿膜側より7ヶ刺入した。この方法では、7日目に6ヶ、14日目に4ヶが認められた。1週後生検では、細胞の大小不同、胞体の空胞変性、核の多形性が目立つ。5週では潰瘍が生じた。しかし、9×11週目には、潰瘍の辺縁の隆起増大、前庭部の狭窄を来し、摂食不能となり15週目に死亡した。剖検所見では放射線効果をかなり認めたと、明らかな再発像もあり、それらの所見と共に問題点について述る。(本研究は厚生省がん研究助成金による。)

Send to Glaser