

## Radioactive Chromic Phosphate in Cystic Brain Tumors

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In 1963 Overton and Sheffel (2) reported, in the *Journal of Neurosurgery*, a patient with cystic Craniopharyngioma who had been treated by injection of radioactive chromic phosphate ( $^{32}\text{Cr PO}_4$ ) into a recurrent cyst and had remained symptom free for 26 months. Regrettable in this report was the oversight of earlier reports by Spiegel and Wycis (1, 4) of the use of radioactive chromic phosphate in similar patients.

Since publication of these reports, one of their earlier patients, as well as our patient, have come to reexploration thus providing opportunity for visual inspection of the areas previously injected.

Drs. Spiegel and Wycis' patient remains well over ten years with a Craniopharyngioma after their first injection of chromic phosphate (5). Their second patient, who harbored a pituitary adenoma, was reoperated on account of failing vision fifteen months following injection. Secondary craniotomy "failed to reveal any gross lesion around the optic nerves or chiasm. The pituitary fossa was empty and no gland or tumor was visible (3)." Although the patient was asymptomatic four years later, visual loss progressed to blindness in one eye.

Our patient developed increased visual difficulty 33 months following injection of the Craniopharyngioma cyst. Efforts to aspirate further cyst fluid were unsuccessful and at craniotomy a suprasellar mass consisting chiefly of solid tumor was found although there was a two centimeter cyst lying above the chiasm. It was believed that the previously cystic portion of the tumor had been destroyed by the injection of radioactive chromic phosphate and that the solid portion and the small cyst found at reoperation represented growth in a new part of the tumor.

The presumption that the original pituitary adenoma in the patient of Spiegel and Wycis was destroyed by the radioactive material, appears confirmed by their surgical note. Failure to find evidence of the previously huge cyst which we had injected with radioactive chromic phosphate seems to indicate that this cyst had also been destroyed.

These findings would appear to provide justification for the further use of radioactive chromic phosphate in certain cystic tumors when surgery alone would be ineffective.

#### REFERENCES

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