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# Very late recovery of vision after removal of giant pituitary tumour

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## ABSTRACT

Visual impairment is the most common clinical presentation of the pituitary tumour. Visual recovery usually occurs within days to months after surgical removal of the tumor. We report a case of a giant pituitary tumour where preoperatively there was severe visual impairment. Postoperatively he recovered vision in one eye within three months and the other eye remained completely blind for 5 years, then it began to recover very slowly to a serviceable vision in the next six years.

Keywords
very late recovery of vision, giant pituitary tumour

A 22 years old young man presented with progressive loss of vision in both eye for last 2 years. He was near totally blind on right side and could see with to some extent by the left eye. Clinical examination showed, there were only PL and PR on right side where as visual acuity was 6/36 on left side. Confrontation test revealed blind right eye with temporal hemi field cut on left side, which was confirmed by perimetry. Fundoscopy revealed early atrophic changes in left eye and atrophic changes in right eye. Contrast MRI showed giant pituitary adenoma extending into suprasellar and subfrontal region. His hormonal study was normal. He under-went transnasal transsphenoidal removal of tumor first but it failed to remove the tumor satisfactorily. So second surgery was done within few days to remove the tumor through right lateral supraorbital frontal craniotomy. Postoperatively his vision on left side began to recover quickly. By the end of three month after operation, visual acuity and visual field on left side recovered completely whereas on the right side it remained as preoperative without any improvement. He was on regular follow up. Five year after operation his vision on right eye began to recover very slowly. It continued to recover for next four years and perimetry showed central and nasal field recovery on the left side [Figure1]. By the end of 09 years after operation, His visual acuity was 6/6 on left side where as on the right side it was 6/20. MRI showed small residual tumor without further growing for last 09 years [Figure2].

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Many factors influences in visual recovery after pituitary surgery such as types of tumor, size of tumor, consistency of tumor, extension and location of tumor, preoperative duration and severity of symptoms, preoperative state of fundus, type and approach of surgery, type of resection, optic canal and optic apparatus decompression etc. 1

Most of the visual recovery occurs with 3-6 month but it may continue several years.2 Although a previous study has reported that the recovery of visual field progresses over several years and that most of the recovery (>50%) occurs in the first 3 to 6 months after surgery, the time course of visual function recovery after transsphenoidal surgery for pituitary adenomas is unclear.3,4 But after scleral buckling procedure of rhegmatogenous retinal detachment involving the macula the vision may continue to recover up to 10 years.5

To best of our knowledge there is no report (of post pituitary surgery) where visual recovery started 5 years after surgery and that continued for another four years. In our case in early postoperative period less severely affected eye recovered with in three month but blind eye remained blind for five years after operation and there after it went for slow recovery. How and why such thing happened, it's a big question.

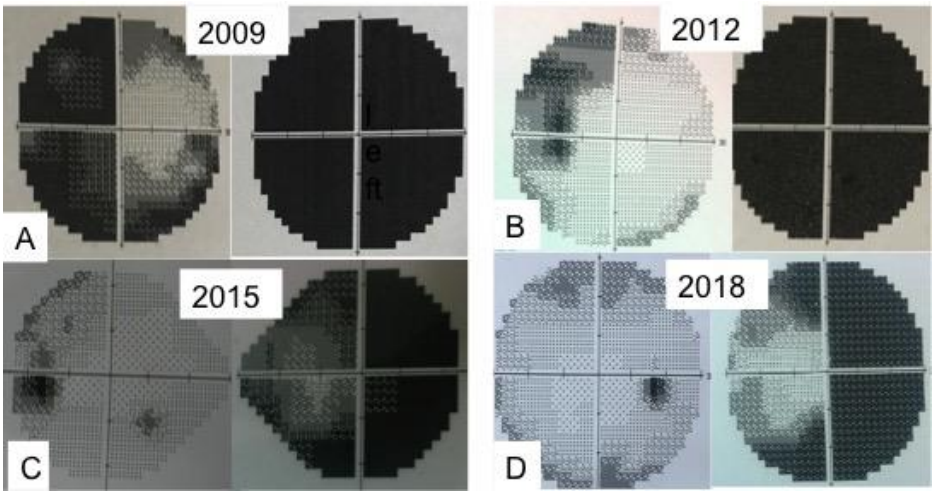


**Figure 1.** Visual fields analysis (VFA). A- before pituitary surgery, left nasal field was the only remaining field of vision. B- 04 years after operation, VFA showing left eye fields recovered whereas right eye was totally blind. C- 07 years operation, VFA showing recovery of left sided central and nasal field of vision. D-9 years after operation VFA showing recovery of left sided central and nasal field of vision.

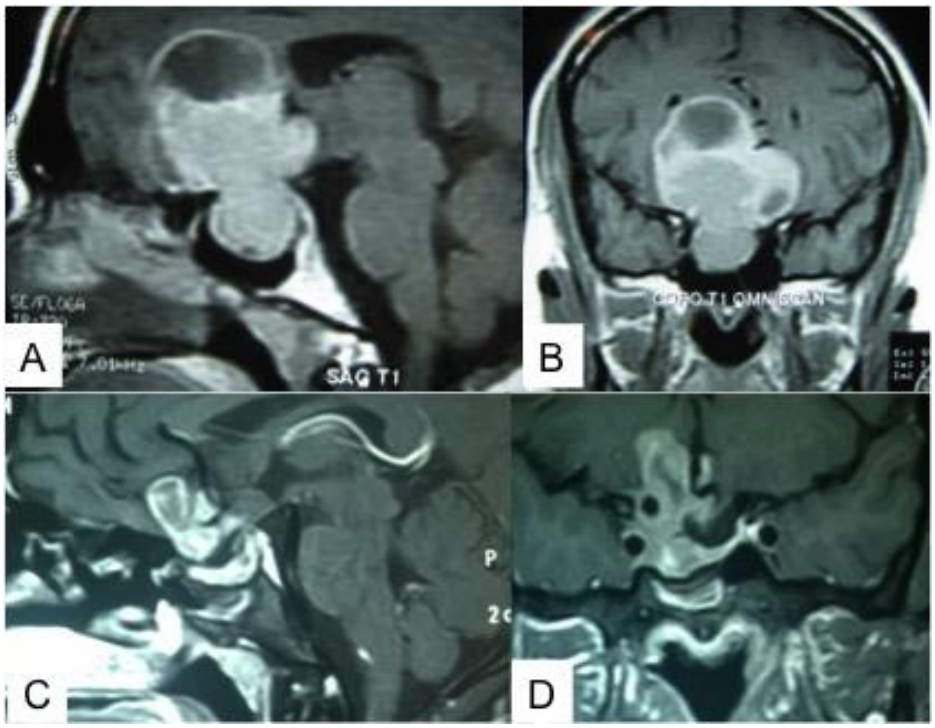


**Figure 2.** Contrast MRI of brain. A&B –Preoperative MRI; sagittal and coronal view showing giant pituitary tumor. C&D- Post operative MRI 09 years after operation; sagittal and coronal view showing small residual tumor.

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