

Nell, S., Verkooijen, H.M., Pieterman, C.R., et al , 2018. **Management of MEN1 Related Nonfunctioning Pancreatic NETs: A Shifting Paradigm** Results From the DutchMEN1 Study Group. *Annals of surgery*, 267(6), pp.1155-1160.

## **Abstract**

### **OBJECTIVE:**

To assess if surgery for Multiple Endocrine Neoplasia type 1 (MEN1) related nonfunctioning pancreatic neuroendocrine tumors (NF-pNETs) is effective for improving overall survival and preventing liver metastasis.

### **BACKGROUND:**

MEN1 leads to multiple early-onset NF-pNETs. The evidence base for guiding the difficult decision who and when to operate is meager.

### **METHODS:**

MEN1 patients diagnosed with NF-pNETs between 1990 and 2014 were selected from the DutchMEN1 Study Group database, including >90% of the Dutch MEN1 population. The effect of surgery was estimated using time-dependent Cox analysis with propensity score restriction and adjustment.

### **RESULTS:**

Of the 152 patients, 53 underwent surgery and 99 were managed by watchful waiting. In the surgery group, tumors were larger and faster-growing, patients were younger, more often male, and were more often treated in centers that operated more frequently. Surgery for NF-pNETs was not associated with a significantly lower risk of liver metastases or death, [adjusted hazard ratio (HR) = 0.73 (0.25-2.11)]. Adjusted HR's after stratification by tumor size were: NF-pNETs <2cm = 2.04 (0.31-13.59) and NF-pNETs 2-3cm = 1.38 (0.09-20.31). Five out of the 6 patients with NF-pNETs >3cm managed by watchful waiting developed liver metastases or died compared with 6 out of the 16 patients who underwent surgery.

### **CONCLUSIONS:**

MEN1 patients with NF-pNETs <2cm can be managed by watchful waiting, hereby avoiding major surgery without loss of oncological safety. The beneficial effect of a surgery in NF-pNETs 2 to 3cm requires further research. In patients with NF-pNETs >3cm, watchful waiting seems not advisable.