Excision of ectopic parathyroid adenomas located within the anterior mediastinum has traditionally relied on open techniques such as median sternotomy. A video-assisted intercostal (IVAMS) approach was described in Spain, by Pablo Moreno, as an alternative to sternotomy and three successful cases were operated on. A 43-year-old man with symptomatic primary hyperparathyroidism presented with renal lithiasis and osteoarticular pain. A parathyroid was located behind the sternum by scintigram and CT scan. The gland was removed by IVAMS through the 4th intercostal space. The successful exeresis was confirmed with intra-operative PTH (iPTH) assay obtained in blood and by fine-needle washing after glandular aspiration biopsy. Surgical pathology reported a 2.2 cm and 360 mg parathyroid adenoma. Five years later the patient is asymptomatic without evidence of recurrence. The authors emphasize that this video-assisted approach allows the excision of parathyroids in a location not accessible to the cervicotomy and thus avoid a sternotomy. They state that the technique is feasible if the parathyroidectomy is confirmed by iPTH and/or radioguided with intraoperative γ-probe.