Table 2. Histopathological features of the three parathyroid carcinomas

Case no	Gross pathology	Histopatological evaluation[a]	Ki-67 Labeling Index[b]	Mean NORA value[c]
1.	A whitish and lobulated parathyroid mass separated from surrounding tissues by a fibrous capsule. The mass measured 2.2 x 2 cm with a weight of 3 g	Neoplastic elements characterized by round nuclei with prominent nucleoli were arranged in solid and diffuse nodules. Thick, sharply outlined bands of collagenous tissue were projected from the capsule into the interior of the mass, giving rise to irregular lobules. At the periphery of the lesion, areas of capsular invasion by neoplastic cells as well as neoplastic thrombi inside vessels were detected (see Figure 2, panel A).	3.75	4.287 μm^2 (Standard Error 0.168) (See Figure 3, panel C)
2.	Parathyroid mass of 6x5x5.5 cm, surrounded by a grayish, discontinuous capsule	Neoplastic elements appeared uniform with central hyperchromatic nuclei, occasional prominent nucleoli and clear cytoplasm. They were arranged in irregular lobules exhibiting a trabecular pattern. At the periphery of the lesion, areas of invasion of the thyroid as well as soft tissues were detected.	3.12	4.425 μm^2 (Standard Error 0.113)
3.	Intrathyroidal parathyroid mass of 3.5X3X3.5 cm surrounded by a dense fibrous capsule	The neoplastic elements, arranged in solid sheets with a cordonal pattern, were monomorphous, with round to ovoid, enlarged nuclei, frequently evident nucleoli and clearly demarcated cytoplasms. The capsule appeared discontinuous for the presence of proliferating neoplastic solid cell nests.	3.09	4.735 μm^2 (Standard Error 0.201)

[a] Histopathological examination was carried out on formalin-fixed paraffin-embedded tissue blocks. [b] On 5µ parallel section, immunohistochemistry for Ki-67 antigen was performed using the monoclonal antibody MIB-1 (Dako Cytomation, Copenhagen, Denmark; working dilution 1:200), after an antigen retrieval pre-treatment by three cycles x 5 min (0.01 M citrate buffer, pH 6.0) in a microwave oven. The Ki-67 staining score was evaluated by counting the percentage of positive nuclei per 1000 neoplastic cells in up to 10 representative fields of the whole neoplastic portions; all degrees of nuclear staining intensity were taken into consideration. [c] Standardised silver-stained Nucleolar Organizer Regions (AgNOR) analysis was performed as reported elsewhere (see ref. 10), and the mean area (in square micrometres) of AgNORs per nucleus (NORA) was evaluated by means of an image analyser and specific softwares.