

Is prophylactic neck dissection for papillary Ca of the thyroid justifiable ?

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Is prophylactic neck dissection justifiable ?

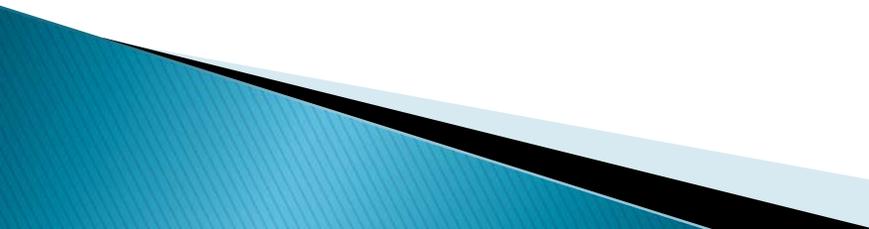
- ▶ No

Is prophylactic neck dissection justifiable ?

- ▶ Maybe

- ▶ (T`s and C`s apply)

How do we treat papillary ca ?

- ▶ 1. Total thyroidectomy
 - ▶ 2. Neck dissection only if nodes are involved
 - ▶ 3. Ablative dose or doses of Radioactive Iodine
 - ▶ 4. Hormone replacement with Eltroxin / Euthyrox
 - ▶ 5. Follow up with Clinical exam +/- Ultrasound , Thyroglobulin and Scintigraphy
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How do we treat Papillary ca ?

- ▶ Total thyroidectomy
 - ▶ – Possibility of multi-centricity
 - ▶ – To prevent recurrences in neck
 - ▶ – To decrease volume that has to be ablated by RAI

How do we treat Papillary ca

- ▶ Ablative dose of radioactive Iodine
 - ▶ –To destroy any residual thyroid tissue in neck
 - ▶ – To diagnose and destroy any metastatic disease
 - ▶ – To enable easy follow up with scintigraphy and Thyroglobulin levels
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How do we treat Papillary ca

- ▶ Use of Thyroid Hormone replacement
 - ▶ –For patients wellbeing
 - ▶ – to decrease TSH that might stimulate further growth of tumour

How do we treat Papillary ca ?

- ▶ Regular follow up
 - ▶ – Clinical examination
 - ▶ – Ultrasound
 - ▶ – Thyroglobulin
 - ▶ – Scintigraphy
 - ▶ – PET scan
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How do we treat Papillary ca ?

- ▶ Recurrent disease is treated by repeating ablative dose of RAI
 - ▶ If recurrent disease doesn't take up Iodine surgery is indicated
 - ▶ Recurrent disease can also be treated by external beam radiotherapy
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Those damn Japanese

- ▶ How is papillary ca treated in Japan ?

The Japanese way

- ▶ 1. Partial thyroidectomy
 - ▶ 2. Extensive central compartment neck dissection
 - ▶ 3. No RAI
 - ▶ 4. No thyroid hormone replacement if not indicated.
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Reasoning behind the Japanese way

- ▶ Total thyroidectomy not indicated due to fact that they seldom see recurrent disease in thyroid.
 - ▶ Probably not necessary for thyroid hormone replacement
 - ▶ RAI treatment seen as hazardous and expensive
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The Japanese way

- ▶ Prophylactic neck dissection done as standard of care
 - ▶ – The occurrence of occult nodal metastases ranges from 18 – 92 % in different series from the east.
 - ▶ – In spite of this most of the recurrences occur in the neck nodes and not elsewhere
 - ▶ – This necessitates very extensive neck node dissections
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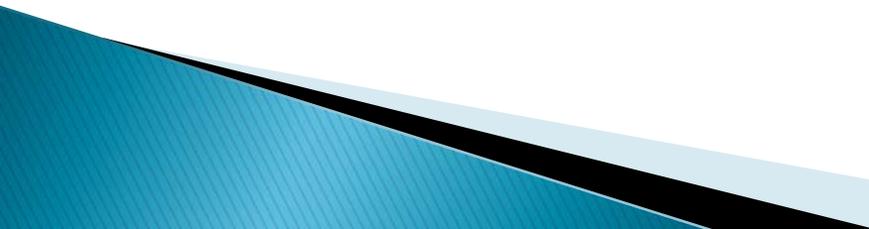
The Japanese way

- ▶ To date there are no studies comparing the outcome of patients who have had a prophylactic neck dissection and who have recurrent disease versus patients who have not had a prophylactic neck dissection and then develop disease in the neck.

The Japanese way

- ▶ Ultrasound investigation of the draining lymph node bed has a positive predictive value and specificity of 92 % and 98 % respectively in a study on 5805 patients who underwent neck dissection – but the negative predictive value and sensitivity were low at 37 % and 12 % respectively. – this means that in 63 % the neck nodes were involved but not demonstrated on ultrasound

The Japanese way

- ▶ Lymph node spread is to the central , lateral and mediastinal compartments
 - ▶ It is believed that spread first takes place to the central compartment and then to the lateral compartment
 - ▶ Central compartment lymph node dissections are done routinely and can be done without extension of the wound
 - ▶ If the lateral compartment is dissected the wound has to be extended
 - ▶ The mediastinal compartment is not routinely dissected
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The Japanese way

- ▶ Markers of possible occult nodal disease
 - ▶ – If primary tumour is larger than 3 cm on high resolution ultrasound
 - ▶ – If there is any indication of extra -thyroidal extension.
- ▶ This would also indicate that a total thyroidectomy should be done.

The Japanese way

- ▶ Due to a high recurrence rate in the neck nodes the neck dissection must be extensive and meticulous
 - ▶ This leads to much higher rate of complications
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The Japanese way

- ▶ Complications
 - ▶ – Recurrent laryngeal and superior laryngeal nerve injuries
 - ▶ – Hypoparathyroidism
 - ▶ – Thoracic duct injuries with lymph / chyle leakage into the neck
 - ▶ – Accessory nerve damage
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Is Prophylactic neck dissection for Papillary ca of the thyroid justifiable?

- ▶ Probably not

My recommendations

- ▶ Radical neck dissection is indicated in clinically involved neck nodes
 - ▶ Due to the relatively high incidence of occult metastatic disease in neck nodes the nodal disease has to be addressed.
 - ▶ Radical neck dissection is only beneficial if done very meticulously and even then has a relatively high recurrence rate – with associated higher incidence of complications
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My recommendations

- ▶ Radioactive Iodine is a very effective way of dealing with occult neck nodal metastases
 - ▶ Radioactive Iodine doesn't have the devastating complications that extensive surgery can have
 - ▶ Radioactive Iodine is cost effective
 - ▶ If radioactive Iodine fails surgery can always be done in a "virgin "neck
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