Occult primary carcinomata

By Carol Wengraf (London)

Summary

Thirty cases of occult primary carcinomata with metastatic nodes in the neck were studied. It was found that the prognosis is poor; 14 (46·5 per cent) were dead within the first year. The site of the primary lesion where found was below the thoracic inlet when the nodes were in the supraclavicular fossae, and in the head and neck when the nodes were in the jugular chain or in the submandibular region. Of the 11 (36 per cent) cases in which the site of the primary lesion was found, four were located in the nasopharynx, and two were bronchial carcinomata. One was found in each of the following, the posterior third of the tongue, laryngeal ventricle, thyroid, oesophagus and prostate. In four cases no primary lesion could be found despite careful post-mortem examination. The nasopharynx should be regarded with suspicion in these cases.

Introduction

Occult primary carcinoma presenting with metastatic disease in the cervical nodes provides difficult problems of diagnosis and treatment. When a patient presents with a node in the neck the primary lesion is usually found at the first examination or when the first series of investigations has been completed. If these give no indication of the site of the primary lesion then the nasopharynx, pharynx, oesophagus, larynx and bronchi should be examined under anaesthetic, and if this is non-contributory then the node should be excised and examined histologically. If this shows Hodgkin's disease or one of the other lymphomas then no further search is necessary, but when it shows metastatic carcinoma it is necessary to repeat detailed examinations of the patient at frequent intervals in an attempt to locate the primary lesion. If this cannot be found the metastatic disease must be treated in isolation, but the treatment of choice is difficult to determine. In an attempt to find out which treatment produced the best results and what factors were helpful in diagnosing the site of the primary lesion, a study of patients with this type of disease was instituted.

Clinical material

Thirty cases were either seen personally or found in the hospital records between 1950 and 1967, and followed up until the present time

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TABLE 1.

AGE, SEX, SITE AND OUTCOME OF 30 CASES OF OCCULT CARCINOMATA.

No.	Age	Sex	Histology	Side	Site	Primary	Outcome	Survival in months
1	46	F	Anaplastic	R	Jugular	PNS	Dead	37
2	35	F	Anaplastic	RL	Jugular	PNS	Dead	33
3	46	M	Anaplastic	L	Submand.	PNS	Alive	110
4	48	M	Anaplastic	R	Jugular	PNS	Alive	15 Active disease
5	64	M	Squamous	L	Jugular	Tongue	Dead	7
6	66	M	Squamous	R	Jugular	Lar. ventricle	Dead	10
7	70	F	Adeno ca.	L	Submand.	Thyroid	Dead	17 Found at PM
8	68	M	Anaplastic	R	S.C.	Oesophagus	Dead	7
9	56	M	Anaplastic	R	S.C.	Bronchus	Dead	15
10	40	F	Adeno ca.	R	S.C.	Bronchus	Dead	9 Found at PM
11	52	M	Adeno ca.	R	S.C.	Prostate	Dead	38
12	38	F	Squamous	R	S.C.	?	Dead	11 No primary PM
13	56	M	Anaplastic	R	Jugular	?	Dead	53 No primary PM
14	43	M	Papillary	RL	Jugular	?	Dead	3 No primary PM
15	77	M	Anaplastic	L	Jugular	?	Dead	7 No primary PM
16	64	F	Anaplastic	R	Jugular	?	Alive	15
17	70	M	Squamous	R	Submand.	?	Alive	51
18	36	M	Squamous	R	Submand.	?	Alive	100
19	47	M	Anaplastic	L	S.C.	?	Alive	162
20	80	M	Squamous	R	Jugular	?	Alive	9 Active disease
21	77	F	Anaplastic	L	S.C.	?	Dead	3
22	80	M	Squamous	L	Jugular	?	Dead	10
23	65	M	Squamous	L	Jugular	?	Dead	6
24	70	M	Adeno ca.	L	Jugular	?	Dead	9
25	79	M	Squamous	R	Posterior	?	Dead	8
26	57	M	Squamous	R	Submand.	?	Dead	34
27	57	F	Anaplastic	L	S.C.	?	Dead	14
28	52	M	Anaplastic	R	S.C.	?	Dead	2
29	69	M	Anaplastic	R	Submand.	?	Dead	6
30	82	M	Anaplastic	L	Submand.	?	Dead	26 Other causes

S.C. = Supraclavicular.

or until death. A post-mortem examination was performed in as many of the recent cases as possible but in the earlier cases only the information recorded on the death certificate was available. Table I shows the age, sex, site, and outcome of the thirty cases in this investigation.

There was a considerable preponderance of males in this series, 22, (68 per cent) but the age incidence corresponds to that of malignant disease generally, ranging from 35 to 82 years. The prognosis of patients presenting with secondary malignant disease in the neck is poor; none of those that succumbed survived 5 years, and 14 (46·5 per cent) of the whole series were dead within the first year. Five (16·5 per cent) only are alive and well from 1 to 9 years after presentation, and a further two are still alive with active disease after 6 months and 1 year.

A definite diagnosis was reached in only 11 (36 per cent) patients despite intensive investigation and in two of these the primary was not found until a post-mortem examination was performed. In a further 4 (13·5 per cent), however, no primary could be found even at autopsy. This may have been either because the primary was involved in the large mass of neoplastic tissue or because the primary disease but not the metastases had been cured by radiotherapy.

The histology in the excised specimens was reported by the pathologist as anaplastic carcinoma in fifteen cases, squamous carcinoma in ten, adenocarcinoma in four, and papillary carcinoma in one case. The survival times do not appear to have been influenced by the type of cell present. Two of those that are still alive at 4 and 8 years had squamous carcinomata and four alive at 1, 1, 4 and 9 years had anaplastic disease. The four with adenocarcinomata are all dead, the longest survival being 3 years.

The site of the node in the first instance does give an indication of the location of the primary disease. Of the nine cases with secondary nodes in the supraclavicular region a final diagnosis was reached in four, and in these the primaries were all located below the thoracic inlet. Of the twenty-one with nodes in the upper parts of the neck the primary disease was determined in seven cases and all were above the thoracic inlet.

Table II shows the site of the presenting nodes with the sites of the primary lesion where found.

TABLE II.

SITE OF PRESENTING NODE IN RELATION TO THE PRIMARY LESION.

Site of presenting nodes		Site of primary disease		
		Below thoracic inlet	Head and neck	Not found
Supraclavicular ..	9	4	0	5
Jugular	13	0	5	8
Submandibular ..	7	0	2	5
Posterior	1	0	0	1
	30	4	7	19

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Treatment

Radiotherapy was the main method of treatment in this series. It was used as the primary method in twenty-two cases, and in four cases it was preceded by excision and in two cases excision alone was the treatment. Two cases were too ill to treat. Two of the five who are alive and well were treated with radiotherapy alone, one with simple excision and two with block dissection followed by radiotherapy. The two cases with active disease were treated with radiotherapy alone. Chemotherapy was used in three cases following radiotherapy without significant benefit. The patient who was found to have a carcinoma of the prostate was helped by stilboestrol for a time, and later for a shorter time by hypophysectomy.

Prognosis

The site of the original node is related to prognosis. Of the seven cases with a node in the submandibular region three are still alive at 4, 8 and 9 years, one died at 20 months from unrelated causes with no active disease and the other three died at 6, 17 and 34 months. This contrasts markedly with the other two sites; in the supraclavicular group only one is alive 14 years later and the other eight died from 2 to 38 months after presentation. In the jugular group of the thirteen cases, ten are dead from 3 to 53 months later, two are alive with disease and the other is alive and well at 14 months. Table III shows the survival times in relation to the site of the nodes.

Discussion

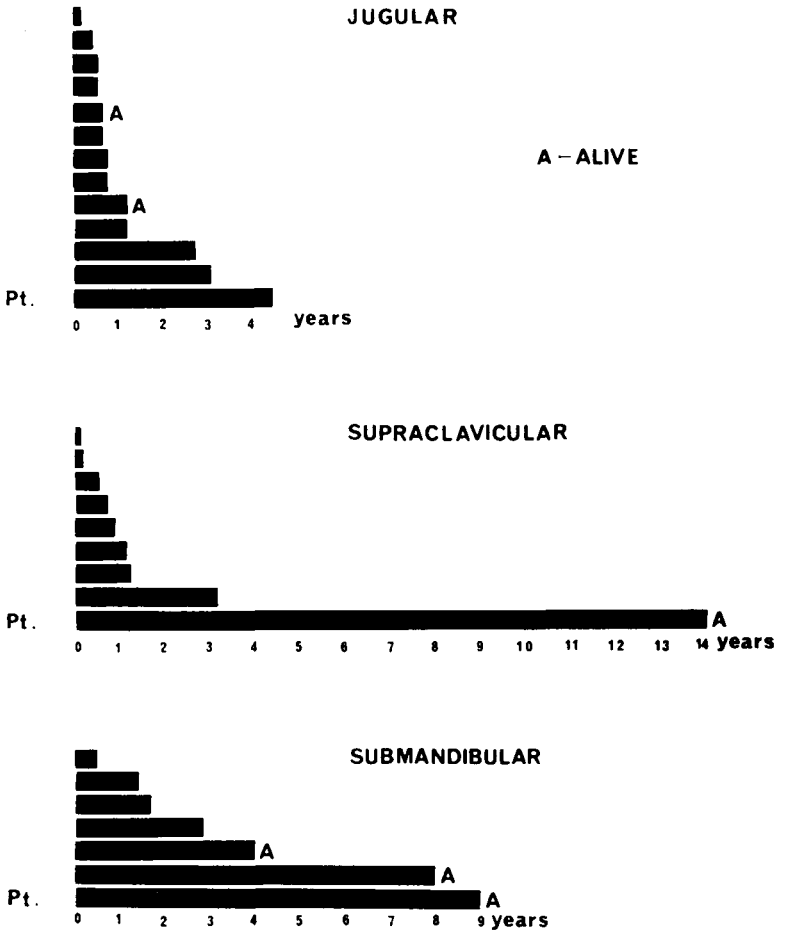
Other studies of this type have been reported in the American literature. Acquarelli *et al.* (1961) reports thirty-one cases with four well and 50 per cent dead in 8 months, three of those alive had excision and one excision followed by radiotherapy. France and Lucas (1963), however, in forty-three cases has four well and finds radiotherapy alone better than surgery followed by radiotherapy. Keim (1966) reports nineteen cases of which six were rapidly found to have primary malignancy in the thyroid gland and all these did well following thyroidectomy and block dissection. Six others are also well, five following block dissection and the sixth following block dissection and radiotherapy. Smith *et al.* (1967) in a series of fifty-three patients noted 62 per cent dead in 6 months, and that the survival times, as in this series, were better with nodes higher in the neck, and better with undifferentiated carcinoma. In his series radiotherapy alone produced better results.

The site of the nodes not only gives one an indication of where to search most diligently for the primary disease but also some assistance in assessing the prognosis of these unfortunate patients. It is very worthwhile continuing to search for the primary disease, and the nasopharynx should remain under suspicion. For instance, in Case 3 the primary was

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TABLE III.

SURVIVAL IN RELATION TO SITE OF NODE.



found in the nasopharynx more than 2 years after the original nodes had been excised, and he is well over 9 years later following radiotherapy to the primary lesion. Case no. 4 presented with a node in the right upper deep cervical region and primary disease in the nasopharynx was suspected. Examination under anaesthetic, however, revealed no abnormality and a biopsy showed 'normal lymphatic tissue' only. One year later, however, he was found to have an extensive carcinoma of the nasopharynx.

Response to treatment appears to be variable in the series which have been reported and in this group no one treatment was preferable. Each case should be treated according to its merits. Patients with malignant

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nodes high in the neck, except for the thyroid cases which form a separate group, are most likely to have primary disease above the thoracic inlet and they seem to have a better prognosis than those with nodes in the supraclavicular region.

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