Medical Memoranda

Kohlrabi as a Source of Vitamin C

The kohlrabi is a vegetable which is not widely grown in Great Britain. It is described by Percival (1936) as a form of cabbage with a turnip-like stem that stands quite above the ground. It differs from the turnip in that the fleshy swollen part is developed from the stem above the cotyledons. No hypocotyl or root is present in it. It is therefore essentially a stem vegetable, although generally referred to as a "root" vegetable. It is regarded as a substitute for, though lacking the pungency of, a turnip. Green, white, and purple varieties are listed in most seed catalogues, and their cultivation presents no special difficulties. It is generally utilized as a cooked vegetable, but the raw grated stem forms an acceptable component of winter salads and is an especially rich source of vitamin C, as the Table below shows. For purposes of comparison, data for three other raw vegetables are included. The vitamin C was determined by titration of a metaphosphoric-trichloroacetic acid extract of the material with 2:6-dichlorophenol-indophenol (Olliver, 1938).

Vitamin C Content of Raw "Root" Vegetables

	Vitamin C (mg. per 100 gm.)
Swede turnip	14
Hamburgh parsley	15
Turnip, var. Manchester market 1	18
" " " " 2	24
" " " " 3	20
" " " " 4	22
Kohlrabi, var. early green 1	47
" " " " 2	66
" " " " 3	52
" " " " 4	59

The kohlrabi is seen to be much richer in vitamin C than the other "root" vegetables tested (all of which are relatively good sources of vitamin C); in this respect it is comparable to watercress (average 61 mg. per 100 grammes—Olliver, 1940). About 3½ oz. of raw kohlrabi would satisfy the daily vitamin C requirements (50 mg.) of a normal adult person. The loss which might occur during cooking was not determined. Clearly we have here a source of vitamin C not appreciated before and unfortunately not available to most people.

Varieties of kohlrabi are often grown on a field scale for stock feeding, and so it should not prove difficult to organize a supply adequate to satisfy an appreciable part of our national vitamin C requirements during winter, when other sources (green vegetables and fruit) are not available.

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Cardiac Massage: Recovery

In view of Mr. Hamilton Bailey's recent plea for the earlier use of cardiac massage in cases of impending death under anaesthesia the following case may be of some interest.

CASE REPORT

The patient, a married woman aged 61, was admitted on October 23, 1941, with the history that about midday she had fallen in the house and sustained wounds of the scalp. On examination about four hours after the accident her general condition appeared to be good, her colour was good, and her pulse rate 70, with a strong and regular beat. The apex beat was normal and auscultation revealed no abnormality in the heart or lungs. The patient was slightly obstreperous. Examination of the motor power, tendon jerks, and cranial nerves detected no obvious lesion. There appeared to have been considerable haemorrhage from the scalp, and blood was still dripping away. There were minor bruises on the front of the chest. She was immediately transferred to the theatre.

Hexobarbitone soluble, 9.5 c.cm., was given slowly as prescribed. The patient stopped counting at 5 c.cm.; at 8 c.cm.

respirations were observed to be moderately deep, but within thirty seconds of the administration of the total dose respirations and pulse failed simultaneously. The condition was one of white asphyxia, with complete absence of respirations, arterial pulse, and heart sounds.

The head of the table was immediately lowered, artificial respiration started, and coramine injected intramuscularly. As this produced no response a tracheal tube was inserted and oxygen given under pressure, whilst artificial respiration was continued and more coramine given. Timing of events was attempted until it was discovered that the theatre clock had stopped. About three minutes must now have passed, and it was decided to inject 30 minims of 1 in 1,000 adrenaline into the heart. This also produced no response. A left paramedian incision was made, the rectus muscle was split, and the right hand was inserted into the abdomen; the heart could be felt in firm contraction through the diaphragm. After a couple of squeezes against the chest wall it began to beat again, regularly and with increasing force. The arterial pulse returned; it slowly increased in volume, bringing a pink colour to her lips.

The scalp wounds still required attention. The head was shaved and a clean-cut laceration of the scalp was seen some 8 inches in length running over the crown. The skin was painted with tincture of iodine and haematomata were expressed from beneath the lacerated galea. No fracture was detected. After cleansing with saline the wound was powdered with sulphapyridine and one silkworm-gut stitch was inserted at the apex of the laceration, the skin edges being drawn into loose juxtaposition.

The patient was returned to the ward, the pulse then being 100 to 110 and of fair but variable volume. An intravenous plasma drip was set up, and two hours after collapse the patient was again conscious, though confused; her colour was fair but her pulse very weak. The pulse rate did not fall to less than 90 for several days, but was of good volume. There was moderate thin purulent discharge from the abdominal wound for a few days. The scalp wounds healed rapidly without infection; they were painted around daily with tincture of iodine and dusted with sulphapyridine. From the second post-operative day the patient received one ampoule of betaxan (vitamin B₁₂) daily, as there was a history of chronic alcoholism with attacks of dizziness and mental confusion over the past year. It appeared that she was probably intoxicated when she fell. Sulphapyridine, 1 gm. thrice daily by mouth, was also given for five days.

Convalescence was uneventful, and the patient was discharged on the twentieth day. When seen a fortnight later she was in excellent general health, the wounds were well healed, and the central nervous system was unaffected.

My thanks are due to Dr. J. L. Burn, medical officer of health for Salford, for permission to publish the case, and to the medical and nursing staff of the hospital for their efficient help.

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The National Institute of Industrial Psychology has just completed twenty-one years' work. Founded at the end of the last war for the study of the psychological aspects of occupational problems, the Institute has since, often under difficult conditions, carried out investigations in industry, and has advised some ten thousand young and older people on their choice of occupation. It has undertaken research both on industrial and vocational problems and has furthered interest in the subject by lectures and publications. The outstanding feature of the twenty-first year, however, has been increased general recognition of the principles which the Institute has advocated. This is reflected in the fact that the services of almost all its technical staff have been called for in connexion with work for the fighting Services. For the War Office and the Admiralty this work is in relation to the selection and allocation of recruits. For the Air Ministry the Institute has assisted with problems of gunnery and flying training. A section of the last annual report devoted to industrial work shows that the investigators have been busy with such questions as the recruitment and selection of operatives, methods of reducing absenteeism, and other matters affecting efficiency and morale.