

conducting such a study is that in many hospitals with anti-coagulation clinics, standardised bridging therapy in patients undergoing low-bleeding-risk procedures is becoming the norm more and more. There are efforts underway in North America from investigators with both Canadian and USA health authorities to conduct such large clinical trials that should produce Level I evidence.

To bridge or not to bridge, that is still the question. Although the question is still to a large extent unresolved, we are slowly getting there.

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Polycythaemia vera and JAK2 mutation

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Recently in this journal Finazzi and Barbui [1] provided a critical reappraisal of the strategies to be adopted for the treatment of polycythaemia vera. They emphasised the mechanistic role in this disease of the somatic mutation V617F of the JAK2 kinase, as well as the potential for therapeutic interventions on the expression of the mutation by using such drugs as interferon- α and imatinib. As mentioned by Finazzi and Barbui [1], the JAK2 mutation is present in almost all patients with polycythaemia vera but testing for it is not strictly necessary for diagnosis when typical haematological abnormalities, i.e., the

increase of red cells mass, haematocrit and haemoglobin, are present and clear cut. However, there are cases of polycythaemia vera in which the typical blood picture is obscured, making diagnosis difficult. This situation occurs when thrombosis, the epitome of complications of polycythaemia vera, occurs in the splanchnic veins, such as the hepatic, portal and splenic veins. In these cases, spleen enlargement due to portal hypertension may mask the presence of polycythaemia and obscure the diagnosis. Finding the JAK2 mutation then becomes the only way to establish the diagnosis, because the results of bone marrow biopsy may also be obscured by hypersplenism. To establish that splanchnic vein thrombosis is due to polycythaemia vera may have therapeutic implications, because the diagnosis of this myeloproliferative disorder would support the use of cytoreductive therapy on top of oral anticoagulants, to control myeloproliferation that occurs in these cases even if peripheral blood counts are not increased.

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Myxoedema coma precipitated by diabetic ketoacidosis and neuroleptic drugs: case report in an intensive care unit

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A 27-year-old woman was transferred from another hospital to our Intensive Care Unit for severe diabetic ketoacidosis in August 2004.

The patient's past medical history included only diabetes mellitus type 1. Four days before admission to our Intensive Care Unit, the patient became agitated and psychotic and was treated with carbamazepine (CBZ), valproate (VPA) and levosulpiride; a brain CT scan, performed the day before the patient was admitted to our Intensive Care Unit, was normal.

Physical examination revealed deterioration of the mental status with apathy, fruity breath odour and dry mucous membranes with pale and cold skin. There were no local signs of central nervous system dysfunction or any palpable thyroid or other neck masses. The chest, heart, abdomen and extremities examinations were normal. The patient was normothermic at presentation (oral temperature was 36.6°C, confirmed by electronic thermometer) and the blood pressure was 135/80 mmHg. Electrocardiogram showed sinus rhythm (heart rate 62 bpm) and decreased voltages with non-specific repolarisation abnormalities. A chest X-ray study was normal. Laboratory investigations showed hyperglycaemia with glycosuria, and ketoacidosis (Table 1).

Twenty-four hours later, despite the correction of hyperglycaemia, glycosuria and ketonuria with intravenous insulin and fluids, the patient showed worsening of mental status, bradycardia (40 b/pm) and exhibited periorbital oedema. Thyroid function tests revealed severe hypothyroidism: fT3<1 pg/ml (2.4–4.7), fT4=4 pg/ml (7–18), TSH=48 mU/l (0.2–4.2). The patient was treated by sublingual triiodothyronine (20 µg) every eight hours for three days, and concomitant L-thyroxine (25 mg) daily. Replacement therapy with triiodothyronine induced a prompt clinical recovery: mental status started to improve four hours after oral triiodothyronine treatment.

Table 1 Laboratory investigations at admission to the Intensive Care Unit

	Values	Normal range
Hb (g/dl)	10.7	14–18
WBC ($\times 10^3/3l$)	13.5	4.0–10.8
RBC ($\times 10^6/6l$)	4.7	4.50–5.50
PLT ($\times 10^3/3l$)	395	130–400
MCV (fl)	98	82.0–94.0
Glycaemia (mg/dl)	409	65–110
Glycosuria (mg/dl)	>1000	<10
Creatinine (mg/dl)	0.9	0.50–1.20
Serum osmolarity (mosm/kg)	317	280–310
Serum Na ⁺ (mmol/l)	138	135–145
Serum K ⁺ (mmol/l)	3.7	3.5–5.0
Serum Cl ⁻ (mmol/l)	100	95–110
ALT (U/l)	65	5–50
AST (U/l)	58	5–50
Arterial blood pH	7.30	7.37–7.45
Bicarbonate (mEq/l)	16	20–26
Ketonuria	++++	-

Hb, haemoglobin; WBC, white blood cells; RBC, red blood cells; PLT, platelets; MCV, mean cell volume; ALT, alanine aminotransferase; AST, aspartate aminotransferase

Only later, when her mother could be eventually contacted by telephone, it was discovered that the patient was in replacement therapy with L-thyroxine 25 mg daily for hypothyroidism; a thyroid function profile performed 3 weeks before showed a euthyroid condition (TSH: 2.4 mU/l).

Myxoedema coma is a rare but potentially lethal complication of hypothyroidism with a mortality ranging from 30% to 60% [1, 2]. The syndrome occurs almost exclusively in older patients (>60 years of age), complicating severe, long-standing hypothyroidism [1–3]. More than 90% of cases occur in females during the winter months [1–3]. Myxoedema coma has not been described after long-lasting withdrawal of replacement therapy among patients after surgical resection for thyroid cancer or those who have undergone radio-ablative treatment [4].

Myxoedema coma of primary origin is the most common form, particularly during the course of chronic autoimmune thyroiditis. It can also occur in patients with secondary hypothyroidism, and there are case reports of its occurrence in patients with lithium or amiodarone-induced hypothyroidism [5, 6]. The hallmarks of myxoedema coma are deterioration of the patient's mental status (manifesting as confusion, psychosis, apathy and, rarely, coma) and hypothermia. The degree of hypothermia is directly related to mortality [7, 8]. Myxoedema coma can be precipitated by an acute event such as a septic event, particularly pneumonia and urinary tract infection, as well as a myocardial infarction, or exposure to cold temperatures. A few reports indicate that myxoedema coma can be precipitated by metabolic disorders [9] or by drugs, especially narcotics and antiepileptic drugs [10–12]. In this patient, diabetic ketoacidosis might have contributed to the rapid development of myxoedema, also masking the typical clinical and laboratory features of severe hypothyroidism.

This is an unusual case of myxoedema coma because of the young age of the patient and the summer "seasonality". In addition, this young patient did not have long-standing hypothyroidism; thyroid function tests showed a euthyroid state only 3 weeks prior to hospital admission; it is unlikely that the withdrawal of 25 mg daily of L-thyroxine for a few weeks could precipitate a myxoedema coma, even with an associated diabetic ketoacidosis. We speculate that CBZ and VPA, as already reported by others [10–12], played an important role in further impairing thyroid function leading to myxoedema coma in our patient.

The altered thyroid function during CBZ medication has been attributed to induction of the hepatic P-450 enzyme system with a consequent increase in the metabolism of thyroid hormones; in addition CBZ can inhibit uptake of iodine by the thyroid gland. VPA medication is well known to be associated with metabolic and endocrine changes in women with epilepsy, such as reproductive endocrine disorders. Both normal and elevated serum levels of thyroid hormones and TSH have been reported among patients on VPA treatment, the hypothesis being that this drug can interfere with the regulation of thyroid function in the hypothalamus [10–12].

The interesting aspects of this case concern the concurrence of unusual features, such as the young age of patient, the recently documented euthyroid state, the summer seasonality and the potential contribution of both diabetic ketoacidosis and neuroleptic drugs in precipitating myxoedema coma.

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Singular coexistence of anti-Hu syndrome, finger clubbing and pseudoscleroderma in small cell lung cancer

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Paraneoplastic neurological disorders are a group of human neurodegenerative diseases that are associated with cancer and antitumour autoimmunity. Each of these disorders is associated with characteristic tumour types, most commonly small cell lung cancer (SCLC), breast and ovarian cancer. In 60% of patients the neurologic symptoms precede the cancer diagnosis. Paraneoplastic neurologic disorders occur in 0.5%–1% of all cancer patients, but they occur in 2%–3% of patients with lung cancer.

A 65-year-old man was admitted to our Internal Medicine Department for a long-standing history of polyarthralgias, acral paraesthesias, cutaneous abnormalities of the face and the hands with a sclerodermic appearance, weight loss, asthenia and anorexia. He was taking bisoprolol, aspirin, isorbide mononitrate and pentoxifylline for a previous clinical diagnosis of angina pectoris and peripheral arterial disease. At the age of 37 years, the patient had a Billroth II gastrectomy for a peptic duodenal ulcer. He smoked 20 cigarettes daily for 40 years, and drank two glasses of wine every day.

The patient had been in good health until 20 months before our observation, when he started to experience pain in his left hand and cubitus; a tendinitis of the first extensor tendon. This was diagnosed and treated, and the patient had physical therapy without any symptomatic improvement. After an electromyography/electroneuronography (EMG/ENG) test, Wartenberg's syndrome was diagnosed, and the patient underwent neurolysis of the sensory branch of the left radial nerve. Some months later, because of the persistence of symptoms and their extension to the other upper limb, the patient had a repeat EMG/ENG. A carpal tunnel syndrome of the right hand was diagnosed: a surgical decompression was performed, but, once again, the patient showed no improvement. In the mean time, sensory abnormalities showed the feature of stocking-glove paraesthesias with sensory ataxia and wormlike involuntary movements of the outstretched hands and fingers (pseudothetosis). Skin changes also appeared: first, the fingers and hands became swollen; then the skin gradually became firm, thickened and tightly bound to the underlying subcutaneous tissue (sclerodactyly; Fig. 1). The skin over the cheeks and forehead was tight and shiny with loss of wrinkles and facial expression. There were furrows around the mouth perpendicular to the lips. The lips were thin, and the nose had a pinched appearance. Raynaud's phenomenon was observed intermittently. The fingers showed typical clubbing. Later, polyarthralgias of the big joints (knees, hips, elbows, shoulders) and manifestations of systemic disease appeared with anorexia, weight loss (10 kg in 8–10 months) and asthenia. The patient was evaluated immunologically to exclude scleroderma. Laboratory test results showed an increase in inflammato-