



Debility and/or Loss of Weight the Diagnostic Approach

Charles W. Seward

M.D., F.R.C.P.E.

Abstract

These last few decades have given us greatly increased precision of diagnosis and therapeutic power, and we, no longer merit Matthew Arnold's rebuke. These revolutionary changes have been produced as a result of a great spirit of free enquiry, a search for facts and their explanation. Such a search is dependent initially on the development of a working hypothesis, and this is just what a tentative diagnosis is. From this point our search is for facts uncoloured by accepted authority, popular opinion or personal prejudice.

In medicine Galen of Pergamum was the "Master" for many centuries, and from 200 A.D. the dead hand of Galen's authority lay upon medicine for over 1300 years. The mighty Leonardo da Vinci first questioned Galen's views and in England in 1620 Francis Bacon in his "Novum Organum" urged men to abandon their four idols-accepted authority, popular opinion, legal bias and personal prejudice. Yet, despite Leonardo da Vinci and Bacon and even the revolutionary work of Harvey in 1628, it was not until the time of Lister (1860) that medicine ceased to be a traditional empirical art bound to the words of the Master and accepted authority.

There are for us three kinds of facts, viz. symptoms, signs and the results of investigations, and upon these we base our diagnosis. It is because of the difficulty in setting down an accurate account of the first of these that medicine will be for ever an art.

Copyright Royal Medical Society. All rights reserved. The copyright is retained by the author and the Royal Medical Society, except where explicitly otherwise stated. Scans have been produced by the Digital Imaging Unit at Edinburgh University Library. Res Medica is supported by the University of Edinburgh's Journal Hosting Service: <http://journals.ed.ac.uk>

ISSN: 2051-7580 (Online) ISSN: 0482-3206 (Print)

Res Medica is published by the Royal Medical Society, 5/5 Bristo Square, Edinburgh, EH8 9AL

Res Medica, May 1961, 2(4): 5-10

doi: [10.2218/resmedica.v2i4.357](https://doi.org/10.2218/resmedica.v2i4.357)

DEBILITY AND/OR LOSS OF WEIGHT THE DIAGNOSTIC APPROACH

By CHARLES W. SEWARD, M.D., F.R.C.P.E.

Based on an address delivered to the Royal
Medical Society, on Friday, 11th November, 1960.

*Nor bring to see me cease to live,
Some doctor full of phrase and fame
To nod his sapient head and give
The ill he cannot cure a name.*

—MATTHEW ARNOLD

These last few decades have given us greatly increased precision of diagnosis and therapeutic power, and we, no longer merit Matthew Arnold's rebuke. These revolutionary changes have been produced as a result of a great spirit of free enquiry, a search for facts and their explanation. Such a search is dependent initially on the development of a working hypothesis, and this is just what a tentative diagnosis is. From this point our search is for facts uncoloured by accepted authority, popular opinion or personal prejudice.

In medicine Galen of Pergamum was the "Master" for many centuries, and from 200 A.D. the dead hand of Galen's authority lay upon medicine for over 1300 years. The mighty Leonardo da Vinci first questioned Galen's views and in England in 1620 Francis Bacon in his "Novum Organum" urged men to abandon their four idols—accepted authority, popular opinion, legal bias and personal prejudice. Yet, despite Leonardo da Vinci and Bacon and even the revolutionary work of Harvey in 1628, it was not until the time of Lister (1860) that medicine ceased to be a traditional empirical art bound to the words of the Master and accepted authority.

There are for us three kinds of facts, viz. symptoms, signs and the results of investigations, and upon these we base our diagnosis. It is because of the difficulty in setting down an accurate account of the first of these that medicine will be for ever an art.

THE HISTORY AND SYMPTOMS

We have to get down upon our history sheet what is in the patient's mind; the patient may be truthful or untruthful, exaggerating or minimising, garrulous, forgetful, nervous, confused or senile, not to mention deaf or stupid. He may even omit a vital piece of information not thinking it to be important as in the following two instances.

(1) "I recall seeing a pale woman with epigastric pain. Having got her story without leading questions I was compelled to seek for a cause of her probable anaemia. Had she lost any blood recently? Oh yes, she had vomited more than a pint the previous week."

(2) "Another woman was sent because of diarrhoea of 10 years duration. Did she then remember the onset? Yes, she had been troubled with constipation and had seen her doctor. What did he advise? He instructed her to take half an ounce of Epsom Salts every morning. Had she done so? Yes, she had never missed a day since!"

Another difficulty is the translation of the patient's idiom into clinical concepts which may be handled. The patient may tell us of "chills," "liver attacks," stomach trouble" or "anaemia," which terms may mean nothing or something quite different to the doctor as compared with the patient. It is sometimes taught that we should let the patient tell his own story, only guiding him where necessary. Experience seems to indicate, however, that one should restrain the patient's natural tendency to tell his tale and keep to the opening question, "Of what do you complain?"

It is my habit to select the significant symptom, which is by no means that of which the patient complains, as in the following example.

"The patient complains of breathlessness, chest pain on exertion, or epigastric pain. We note however that he is pale and that the haemoglobin estimation shows marked anaemia. Further enquiry reveals that his symptoms date from an occasion a few weeks ago when he felt faint during an evacuation of the bowel. On further enquiry it is found that he was sweating at the time and that the stools he passed were black, he presumed the latter to be due to something he had eaten."

The significant symptom here is not dyspnoea, sternal or epigastric pain or even anaemia. It is melaena, the cause of which must be investigated.

Confronted with the history and our findings on examination, there are two ways of approaching the problem of diagnosis. Firstly one may conjecture that it may be this or it may be that, or secondly a rational and systematic consideration of the significant symptom or sign and its possible causes may be undertaken.

PRELIMINARY CONSIDERATIONS

Variations in the degree of "energy" possessed by persons in normal health are very great. Some are almost indefatigable, whilst others have tired readily all their lives, yet no disease of body or mind may be found, intake of food has been adequate in quality and quantity, and the musculature is normal. This individual variation is not necessarily related to weight, height or posture and such subjects suffer illness no more frequently and no more severely and die no sooner than their more vital brethren.

Debility or readily induced fatigue sometimes amounting to exhaustion is one of the commonest symptoms. It baffles the patient to describe and the physician to analyse, but when it has an organic basis it is commonly accompanied by loss of weight.

Loss of weight, considered alone for the moment, may be physiological. It occurs in many in the summer and is often marked in new arrivals in the tropics, who may lose as much as two stones. This is presumably due to a diminished intake through a loss of appetite in the hot weather, the physiological overcoat being thus discarded. People also lose flesh after middle age as a rule, again presumably due to a diminution of appetite.

THE DIAGNOSTIC APPROACH

The first step is to find out the duration of the symptoms, and then to check for any other symptoms that have not been volunteered, such as thirst, frequency of micturition or dysuria, palpitations, etc. Positive answers to the latter particularly may lead us rapidly to a tentative diagnosis, such as diabetes, thyrotoxicosis or pyelonephritis.

Before considering the 3 main headings, there are two groups of 3 symptoms each of which should be first enquired for and excluded.

Pyrexia. A chronic fever as from brucellosis or sub-acute bacterial endocarditis may exist without the patient being aware of it. If there is such a possibility the temperature should be checked twice daily or even 4-hourly and charted. The general symptoms of pyrexia must be sought and a white cell count and determination of the blood sedimentation rate should be carried out.

Anaemia. This should be remembered for it is by no means always obvious, as in the following instances.

"I recall a sallow black-haired spinster of 60 years, she had been 'anaemic all her life'; she had never had a blood examination but had been constantly on iron therapy. I calculated that she had consumed $\frac{1}{2}$ ton of iron. Half convinced I sent her for a haemoglobin estimation, it was 117%."

"Again, I saw an apple-cheeked young farmer's wife sent with dyspnoea attributed to her heart and having been warned against exertion. She had had a child two months previously, lochia had persisted due to subinsolution and the haemoglobin was 54%."

The correct medical reaction to the sight of a pale patient or any other with suspected anaemia is not to prescribe iron but to estimate the haemoglobin; a white cell count and blood sedimentation rate determination should also be carried out. The haemoglobin estimation takes only 5 minutes and no medical bag should be considered complete without a haemoglobinometer.

Chronic Pain. This and the resulting sleeplessness and fatigue may induce loss of appetite and consequent deficient intake.

Intake is strictly speaking from the mucous membrane of the small intestine. It must therefore be ascertained if the food taken in by the mouth reaches it and remains in contact for an adequate period to allow absorption to take place. Having regard to this there is another set of three symptoms all to do with the alimentary tract.

Dysphagia. Difficulty or pain in swallowing, or the regurgitation of food swallowed may be present, and if so it should be presumed to be the cause of the debility and loss of weight, and investigated.

Vomiting. If this is more than occasional it should be regarded as the significant symptom and followed up.

Diarrhoea. Whilst this topic will be considered under the main heading of Malabsorption, it should if present be the symptom investigated.

It may be claimed that patients will not complain of debility and loss of weight rather than these six symptoms, but this is not necessarily so. Patients complain of that symptom which concerns them most and it is not necessarily the significant one.

Having made these preliminary exclusions, the possible cause of the debility and loss of weight may be considered under the following three headings viz. deficient intake, malabsorption and deranged metabolism.

DEFICIENT INTAKE

Careful questioning of the patient or family should establish whether the food intake is reduced or unaltered from former habit. Reduction may have been produced voluntarily or involuntarily.

Intake may be reduced involuntarily when deprivation occurs in prison camps or poverty-stricken communities. Whilst the latter may apply to up to half the population of the world, deficient food intake due to poverty in Britain is very rare nowadays. Indeed malnutrition in a shabby or dirty house suggests alcoholism or mental deficiency rather than frank poverty.

Malnutrition from inadequate feeding may be seen in infants but the demands of appetite of older children and adolescents should overcome this. However, the rapid increase in weight in many youths after joining the Army in the last war showed, though not necessarily from poor homes, they had not previously received a properly balanced diet.

Intake may be restricted voluntarily e.g. there is the occasional case of the old person living alone on a diet of toast and tea.

Depression and Anxiety. Intake may be reduced because of loss of appetite from anxiety, grief or depression. This should become clear in the course of an interview with the patient or from friends and relations. Food may be reduced deliberately in the following of food fads or slimming courses, though patients who are thin due to this latter cause are unlikely to appear on this account. They may however be brought by parents or complain of debility. This cause of debility and loss of weight differs in degree rather than in kind from :

Anorexia Nervosa. This is seen characteristically in girls 15 - 25 years of age, but may occur in older women. They are moody, resentful and irritable but astonishingly energetic. Amenorrhoea is usual, the body is emaciated and often covered with downy hair. The disease may be a "killer" and, like drug addiction, requires handling by a psychiatrist.

Drug Addiction. In this country the commonest form of addiction is to alcohol. Loss of weight may not be evident until cirrhosis has begun, since beer drinkers particularly, are often fat. In later stages the loss of weight may also be masked by ascites.

MALABSORPTION

If intake has evidently been adequate and yet loss of weight has occurred, we must consider whether the food taken has been properly absorbed. Absorption of all food elements may be impaired and this is expressed by the term "malabsorption syndrome." The symptoms and signs are pleasingly explicable when each element is considered as to its deficiency, e.g. protein and nitrogen loss with wasting and oedema, iron loss with hypochromic anaemia, vitamin B₁₂ or folic acid loss with macrocytic anaemia, etc. The loss of water and electrolytes, especially potassium, in such cases may well account for the muscular weakness experienced.

Impaired absorption may be endogenous, being due to actual enteritis as biopsies have shown, or exogenous. In practice it is better to consider the latter first.

EXOGENOUS CAUSES OF MALABSORPTION

Operation Sequelae. A history of abdominal operations and the presence of one or more scars raises this possibility. Operations such as gastrectomy, resection of part of the small intestine for mesenteric thrombosis, strangulated hernia, etc., may give rise to the formation of fistulae or a blind loop thus producing malabsorptive symptoms.

Chronic Pancreatitis may present as diarrhoea or as debility and loss of weight. It may arise silently or following an acute or recurring sub-acute pancreatitis. Epigastric pain, vomiting and fatty diarrhoea may occur. In distinction from the coeliac syndrome the blood picture is normal.

Hepatic Cirrhosis. Portal hypertension with congestion of the gastrointestinal tract produces anorexia, nausea, vomiting and flatulence. The facies may be typical and the spleen is palpable ; liver function tests are called for.

ENDOGENOUS CAUSES OF MALABSORPTION

Regional Enteritis. Debility and loss of weight with diarrhoea which may resemble ulcerative colitis are the features of this fairly rare disease; in the course of treatment resection and blind loops may have left little healthy intestine. Ileo-colitis when the lower ileum is involved in ulcerative colitis can produce a similar effect.

Coeliac Syndrome. Tropical sprue is rarely seen in Britain, though several cases have occurred in former residents in the tropics. Steatorrhoea may be in the form of coeliac disease of young children or the idiopathic steatorrhoea of adults. It has been shown that in a series of 163 cases of malabsorption 66% were accounted for by coeliac syndrome.

Jejunal diverticulosis and nowadays intestinal tuberculosis provide two rare endogenous causes of malabsorption

DERANGED METABOLISM

These causes may be classified under four main headings.

(1) Infective Causes.

Sepsis. This has become rather unfashionable in recent decades but people still exist with silent tooth abscesses, chronic tonsillitis, diseased gallbladders and even chronic appendicitis, who benefit after their removal. The commonest form is pyelo-nephritis.

Arthritis. This will surely display itself by pain, swelling and stiffness of the joints but chronicity may draw the patients attention rather to debility.

Hepatitis

(i) *Infective Hepatitis.* Whilst a history of recent jaundice or transient dark urine or pale stools should be asked for, the possibility of the "sine ictero" form must be borne in mind. For example in two large epidemics in soldiers in the Middle East jaundice was absent in 10% and 33% of cases. In this country such cases may easily be overlooked. There should be history of a febrile attack usually with gastric pain, nausea, vomiting, headache, malaise and incomplete recovery. No evidence may remain save a tender, enlarged liver and abnormal liver function tests.

(ii) *Glandular Fever.* A history of recent or not so recent fever with enlarged glands, sore throat, perhaps a rash and occasionally jaundice may be obtained in a patient with debility and occasional fever and sweats. The blood film may still show atypical lymphocytes and the Paul Bunnell test may remain positive for many weeks. Liver function tests will show parenchymatous damage.

(iii) *Chronic Hepatic Amoebiasis.* This is seldom seen in Britain, though cases may be expected as an aftermath of infection in people returning from the Middle or Far East. A frank history of diarrhoea with blood and mucous is not always obtained. The liver is enlarged and the stools may contain cysts.

Syphilis and malaria are relatively rare causes and tuberculosis is on the wain. Endocarditis in its sub-acute form may elude us by not coming into our minds, such cases are uncommon rather than rare and may present as anaemia and fever.

(2) Toxic Causes

Uraemia. An investigation is incomplete of course without an examination of the urine and the finding of proteinuria leads us to think of uraemia. The earliest symptoms are usually alimentary i.e. vomiting and sometimes diarrhoea.

Sarcoidosis and periarteritis nodosa are rare causes though in my personal experience cranial arteritis is less rare.

(3) Endocrine Causes

All the ductless glands may be responsible for debility and loss of weight when their functions are disturbed, e.g. the pituitary in Simmonds' disease, the thyroid in thyrotoxicosis and hypothyroidism, the thymus in myaesthesia gravis, the suprarenal in Addison's disease, etc.

(4) Neoplastic Causes

Lest they should be omitted it will perhaps be best to consider neoplasia of the leucocyte and the plasma cells of the reticulo-endothelial system first i.e. leukaemia and myelomatosis respectively. Hodgkin's disease may also be considered in this context. It may present as enlarged glands or fever or may be revealed by X-rays of the mediastinum.

Cancer. Occult cancer is the underlying anxiety of the doctor and patient alike, especially when the latter is in middle or later life. In the absence of any leading symptoms or signs each system in turn must be fully investigated. If all the main systems i.e. alimentary, respiratory, renal, cardiovascular and neurological are fully examined and these are supplemented by special investigations of the thyroid suprarenals and bones some twenty possible primary sources will have been covered.

The individual causes in this outline have necessarily received but scant attention. However, if the 6 primary exclusions and the 3 main headings and their sub-divisions are remembered the rest will readily be recalled.

"To conclude, I have tried to outline my method of approach to a pair of symptoms which must haunt every surgery and out-patient clinic daily."

YOUR MEDICAL BOOKSHOP

Progress in Clinical Surgery

Series II by various authors under the editorship of
RODNEY SMITH. £2 10s. 0d.

Clinical Endocrinology

LAURENCE MARTIN. 3rd Edition. £1 8s. 0d.

The Newborn Child

DAVID G. VULLIAMY 15s. 0d.

Progress in Clinical Medicine

DALEY & MILLER. 4th Edition. £2 10s. 0d.

A Pocket Gynaecology

CLAYTON. 4th Edition. 12s. 0d.

The Essentials of Materia Medica

Pharmacology and Therapeutics by R. H. MICKS. 8th Edition.
£1 10s. 0d.

CAIRNS BROTHERS

MEDICAL BOOKSELLERS

2 and 3 TEVIOT PLACE, EDINBURGH, 1

Telephone—CAL 6563