

The Iron Deficiency Syndrome IDS

A Multicentre Investigation

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Summary

The Iron Deficiency Syndrome IDS – iron deficiency without anaemia – was first described in 2006 and its existence has since been widely confirmed not only on the basis of experience in clinical practice. Only one year after the first publication, a multicentre database also provided statistical proof of the existence of this syndrome. This means that we now have indisputable evidence that iron deficiency can not only cause anaemia (iron deficiency anaemia IDA) but that it can also significantly compromise health and wellbeing years before the appearance of this symptom. Since the signs and symptoms in question are difficult or in most cases impossible to detect with objective research methods they could not be recognised using conventional scientific method based solely on objective criteria.

Hence the iron deficiency syndrome IDS owes its discovery to a new research approach: patient-oriented research as an extension of the blinkered scientific method used to date. Patient oriented research takes into account subjective criteria in addition to the objective criteria of conventional scientific method. Only then does it become possible to examine correlations between objective and subjective criteria. This gives us an interface which is of particular therapeutic relevance and is based on the following simple logic:

If the correction of a deficiency state in the body causes a symptom to disappear we can assume with a high degree of probability that the previous deficiency was responsible – either wholly or in part – for the impaired state of health and wellbeing which has now been eliminated.

- 1) *Figures 6-8 show the ratio of successful to unsuccessful treatments with iron infusions.*
- 2) ²⁾ *CRP is elevated in the presence of inflammation. In such cases ferritin is also elevated and must not be interpreted. STR and TF can be used to estimate how long the iron deficiency has been present.*

In this way we were able to define the nine cardinal symptoms of IDS. These are:

- Fatigue
- Difficulty concentrating
- Depressed mood
- Sleep disturbances
- Dizziness
- Tense neck muscles
- Headaches
- Hair loss
- Brittle nails

The therapeutic approach is therefore as follows:

A person who suffers from one or more of the listed symptoms and at the same time has an iron deficiency has a good chance of experiencing lasting improvement or even cure if the iron concentrations in his or her blood are raised to the required level as quickly as possible ¹⁾.

Methods

The principle of scientific method extended by subjective criteria was mentioned in the summary. In our study we documented five laboratory parameters of patients with iron deficiency: ferritin, C-reactive protein (CRP), haemoglobin (Hb), soluble transferrin receptors (STR) and transferrin (TF) ²⁾. In addition to these objective criteria the frequency of menstruation and its duration in days were documented and diet and body weight were recorded. Finally the individually experienced symptoms (see above) were documented.

The laboratory values and subjective state of wellbeing were documented both before and (2 weeks) after rapid replenishment of the

body's iron stores with iron infusions and were thus available for digital correlation.

The data were obtained from treatment courses documented by a total of 17 iron clinics³⁾.

Epidemiology

Treatment courses of 272 women of menstruating age were documented and analysed.

Epidemiology of iron deficiency: Iron deficiency is found in a quarter to a half of the world's population and can thus be said to be a problem of epidemic dimension⁴⁾. It is prevalent not only in countries with undernutrition but also in the so-called first world where undernutrition is not essentially a problem.

The doctors at the 30 iron clinics currently in operation are seeing iron deficiency increasingly in children with concentration problems (ADS), men with burnout syndrome, elderly people and even in athletes.

Diagnostic procedure

A diagnosis of iron deficiency syndrome can only be confirmed *after* rapid replenishment of the iron stores with iron infusions. Before the treatment it is only possible to put forward a hypothesis. For example: A person who has an iron deficiency and is at the same time depressed has a good chance of benefiting from iron infusions in overcoming the depression.

³⁾ The multicentre documentation is made possible by the internet platform health-banking (h-banking).

⁴⁾ ETH Zürich: 2 billion, Professor R. Schaefer, University of Muenster, Germany: 4 billion.

Only if the symptoms in question subside as a result of the iron infusions can the diagnosis of

iron deficiency depression be confirmed in terms of a 'posttherapeutic diagnosis'.

There is thus clearly an urgent need for a high-quality instrument which allows us to arrive at a suspected diagnosis and establish that treatment is indicated and which at the same time prevents us from overlooking further, possibly serious diseases.

The instrument in question consists of a questionnaire for arriving at a suspected diagnosis (Figure 3) and a formula for calculating the need for iron infusions (see first publication 2006). The strategy for excluding other causes of disease is taught at the workshop for interested doctors (AIM: Advanced IDS Management).

Indication

Only after making the suspected diagnosis (Figure 3), establishing the presence of iron deficiency and excluding other causes can it be said that treatment with iron infusions is indicated.

Treatment

The only convincing effective, safe and lasting treatment consists in rapid intravenous replenishment of the iron stores with iron infusions. The success of this treatment depends essentially on two factors:

1. On the individually calculated amount of iron necessary for optimal replenishment (h-banking offers the iron clinics and internet calculator for online calculation)
2. On replenishment of the iron stores as quickly as possible by means of intravenous infusions. The treatment has three goals:
 - To relieve the symptoms as quickly as possible.
 - To confirm the diagnosis (the faster the therapy is performed the less likelihood there is of the diagnosis being confounded by further factors).
 - Memory effect: after successful treatment patients can still well

remember their old state and compare it with the new one. This means they are automatically alerted to the occurrence of symptoms indicating a relapse.

Results

The results are presented in the appendix (Figures 1-8).

Figure 1: Symptoms

Figure 2: Symptom combinations

Figure 3: Suspected diagnosis (Clinical Score)

Figure 4: Advanced IDS management AIM.

Figure 5: Ferritin and Haemoglobin

Figures 6-8: Results: Success rates of rapid intravenous replenishment of the iron stores with iron infusions

Comments on the results

There are two ways of looking at the success of rapid replenishment of the iron stores with iron infusions (Tables 6-8):

- The method of the medical establishment: The group of 'successfully treated' patients includes not only the patients who are symptom-free or show marked improvement but also those with only little improvement.
- Our method: Only patients with marked improvement and patients who are now completely symptom-free are counted as 'successfully treated'. Patients with little or no improvement are classed as unsuccessfully treated.

The figures speak for themselves: There is hardly a branch of orthodox medicine which can claim to achieve a success rate of 50 to 80% (depending on the symptoms) through causal treatment. In fact there is scarcely a branch of orthodox medicine which is able to offer a causal treatment for the symptoms in question. We only need to think of the common disorders such as arthritis, high blood pressure, migraine, depression and many more. Usually these patients have to

swallow pills every day to suppress or relieve the symptoms. And there are no documented success rates from the patient's perspective either. One could even say: they swallow the pills in the hope that they will work. Since the causes of these disorders are not known we are a long way from finding causal treatments for them.

Preventing recurrence

After taking stock of the laboratory values and subjective wellbeing two weeks after the end of the treatment we are faced with the question of preventing a recurrence.

What do we need to do to make sure the symptoms do not reappear? How can we prevent the renewed development of an iron deficiency state? Can we avoid further iron infusions by improving the diet in some way or taking dietary supplements?

In women who are still menstruating the answer is quite simply: No. Maybe, depending on what we do, we can extend the intervals between the iron infusions in the future, but nature points us in the direction of relapse. Why this is so, is a question only the gods can answer. At the present time we are no more able to provide an answer than any other specialists in the field of iron deficiency.

The internet platform h-banking offers a strategy for successful relapse prevention. Three months after the treatment the laboratory values and subjective health and wellbeing are reviewed again. Now it is possible to calculate how many ampoules of iron per year a woman needs and at what intervals these should be given to prevent relapse.

Discussion

The existence of iron deficiency has been proven beyond doubt. Likewise the existence of a successful, lasting and safe treatment provided that it is performed by specialists with the necessary expertise. Patients with the described symptoms should have the right to know their ferritin levels and to receive intravenous treatment in the case of iron

deficiency (ferritin below 50 ng/ml). In view of the frequency of iron deficiency (25-50% of the entire world population) the probability is high that a person with the described symptoms will be suffering from iron deficiency.

Particular attention should therefore be paid to the iron deficiency syndrome IDS. In most cases treatment with iron infusions will be the most suitable first-line therapy. Only if symptoms remain after this treatment is it necessary to consider a specific second-line therapy.

We see every day that many affected people spend thousands of Swiss francs annually in the hope of finally ridding themselves of their symptoms. As it was so far never possible to treat the cause, diagnostic tests alternated with desperate treatment attempts, a state which results only in more and more dissatisfied patients and doctors.

From this perspective the cost-benefit ratio of the treatment offered by the iron clinics is eminently presentable. It is significantly better than the cost-benefit ratios of the symptomatic treatments which are often barely effective, of taking pills every day – and of the intermittently performed expensive medical examinations and tests which usually document a scientific ‘normal result’ and are performed largely to relieve the doctor’s bad conscience and the patient’s anxiety. It is not uncommon for this cycle to go on for years ad nauseam.

Outlook

In the near future all nine cardinal symptoms of iron deficiency will be presented in dedicated publications and re-assessed from the perspective of IDS.

Also, the results of the increasing number of documented patients will be presented in h-banking at regular intervals (updating).

Literature

In the last 20 years many articles on iron deficiency have been published, although an iron deficiency syndrome has never yet been defined. The Universities of Lausanne (Switzerland) and Bochum (Germany) are just two examples showing that now and again people have realised: the lower level of the normal range for ferritin given in the text books is too low. This means that many people suffer from an unidentified iron deficiency and therefore consume symptomatic therapies.

There are practically no publications on the function of iron. If we call to mind the iron-dependent body functions we can suspect what will happen if there is an iron deficiency and one function after another is shut down. In this connection we doctors should ask ourselves: How do we think people with iron deficiency *feel* when – were it left to orthodox medicine – they have to wait for improvement and suffer the tortures of inappropriate treatments merely because there is no scientific instrument which provides evidence-based proof that they are really suffering from iron deficiency? This question has never interested scientific research. And so it is not surprising that the universities have missed the boat when it comes to discovering the iron deficiency epidemic and conveying this knowledge to the doctors being trained in the medical schools.

This omission has meant that in the last decades millions of people have suffered unnecessarily and often had to take symptom-suppressing medication without being given a chance of cure.

Scientists did at least discover iron deficiency anaemia 40 years ago (anaemia is the only symptom which is scientifically demonstrable). However, only about 5% of people with iron deficiency suffer from this symptom. On account of the narrow blinkered view of conventional scientific method the remaining 95% could not be given either a satisfactory diagnosis or the chance of cure.

F. Verdon, University of Lausanne:

Iron supplementation for unexplained fatigue in non-anaemic women: double blind randomized placebo controlled trial, BMJ 2003

B. Schaub, Iron Clinic, Binningen:

Das Eisenmangelsyndrom, Ars Medici 2006

For further references see:

www.eisenzentrum.net

Comments on the literature:

Publications on iron deficiency rarely appear in top class medical journals. It seems that it not a topic that scientists find particularly fascinating. It is amazing that iron deficiency is only known in insider circles and that the overwhelming majority know nothing about it – neither patients nor doctors. Although iron deficiency has epidemic proportions it is not mentioned by medical academia during either initial or further training.

It will be interesting to see how long it will be before the professors mention the existence of global iron deficiency in their lectures and text books.

However, the few 'insider studies' are too compelling to be ignored. They confirm almost unanimously the existence of an iron deficiency syndrome, although without mentioning it explicitly.

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