

# Headache - Insomnia - Depression Syndrome

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My interest in the syndrome started in the middle 1950's when I was studying a condition that was affecting some of the children who I was seeing in my general practice in England. These children had developed personality changes following acute infections associated with some rather remarkable fits.

Within two years, I had collected about 40 of these cases. They were mostly between 1 and 5 years of age and characteristically became naughty and difficult a few days after developing an acute infections illness, such as measles or gastro-enteritis. They were irritable, negativistic and spiteful, their sleep was disturbed, waking up many times in the night crying.

Their appetite was poor, they failed to gain weight and their abdomens were often distended and they had bulky pale offensive stools. This condition usually righted itself after a month or two, even if left untreated, but there were some cases which went on for longer and petitmal-like fits occurred.

## Summary:

These three common symptoms often occur together and most general practitioners have their own thoughts on what usually cause them. The sharing of these thoughts may enlarge our vision of the possibilities that face us, so may help to reduce personal bias. Special emphasis is placed on the role of infection and food sensitivity in the production of this syndrome. Methods of management are discussed.

The similarity between this pattern of illness and that of mild coeliac disease led me to treating them successfully with a gluten-free diet and to call the condition Pre-Coeliac Syndrome.

One child developed most remarkable fits and it was these that gave the clue that led me to their cause. These particular fits bore a striking resemblance to those occur-

ing in dogs when fed upon wheat flour treated with a gas called agene, as had been described by the late Sir Edward Mellanby in 1946.

He called these fits "Canine Hysteria"; many had searched for the human counterpart of these fits, but had failed to find it and interest had waned.

Comparing the illness of Pre-Coeliac Syndrome with that of Canine Hysteria showed too many points of similarity to be co-incidence (see tables I and II). Agene-treated flour was surely the cause of both.

On closer enquiry, I found that Mellanby's work had been done on puppies and not on fully grown dogs; the latter apparently just became irritable and sullen when fed on agene-treated flour.

Looking at my adult patients then, I came to the conclusion that the depression associated with headache and insomnia that they were developing following infection such as influenza was the likely adult manifestation of agene-treated flour.

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TABLE 1

## Comparison between canine hysteria & pre-coeliac syndrome

### Canine Hysteria

Onset often associated with infection  
Unfriendly and frightened  
Will bite the hand that feeds it  
Has very disturbed nights  
Abnormal slow unsteady walking  
Has dry mouth  
Has characteristic fits  
Has pale, bulky, foul-smelling stools in later stages of the disease  
Has severe skin irritation and scratches a lot  
Most cases respond promptly to diet which excludes chemically treated flour

### Pre-Coeliac Syndrome

Onset usually associated with infection  
Unfriendly and frightened  
Spiteful and kicks mother and doctor  
Has very disturbed nights  
Abnormal slow staggering gait  
Has dry mouth  
Has similar fits (see Table 11)  
Has pale, bulky, foul-smelling stools, frequently  
Many cases have skin irritation with or without rash  
Most cases respond promptly to gluten-free diet.

**TABLE 2**  
**Comparison of fits in canine hysteria with those in pre-coeliac syndrome**

**Canine Hysteria**

Attacks induced by nervous strain or change of environment  
Frightened look at beginning of fit  
Sits in sphinx-like posture at beginning of fit  
Jerks head backwards at beginning of fit  
Runs round cage barking furiously  
Knocks food and water dishes over and gets cage into filthy mess  
When running stops, staggers round like drunken person  
Often shakes itself at end of fit  
Looks very miserable at end of fit  
Fits stop quickly when chemically-treated flour is withdrawn from the diet  
The longer they have had fits, the longer they take to recover fully on diet which is free of chemically-treated flour

(The description of canine hysteria fits is from Mellanby 1946)

**Pre-coeliac Syndrome**

Attacks induced by nervous strain or change of room  
Frightened look at beginning of fit  
Sits stock still and gazes into space at beginning of fit  
Jerks head backwards at beginning of fit  
Runs round room shouting or screaming  
Knocks into walls apparently without seeing them  
When walking, has staggering drunken gait  
Often shakes himself at end of fit  
Looks very miserable at end of fit and often cries  
Fits quickly stop when put on to gluten-free diet  
The longer they have had fits, the longer they take to recover fully on gluten-free diet

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These responded in like manner to the avoidance of all wheat-flour — containing foods, their symptoms clearing up within a few days of starting their diet. For convenience, I thought of them as suffering from Headache-Insomnia-Depression syndrome.

At the time, the vast majority of white bread being consumed by the people of Britain was made from agene-treated flour. This made the loaf both bigger and whiter.

Soon after my studies became known the use of agene as a flour improver was banned by the British Government. The conditions I described then more or less disappeared, but not altogether.

**Present status of the syndrome**

I believe that the Headache-Insomnia-Depression syndrome still occurs, mainly affecting men and women between 20 and 45. Most cases of depression are associated with insomnia and its diagnosis is often doubted when this is absent.

However, there is a form of depression which is associated with deep sleep; this form does not respond to the tricyclic antidepressants but appears to respond only to Monoamine-Oxidase inhibitors.

Likewise some cases of manic depressive psychosis sleep well, even when in a deeply depressive phase. It is therefore the addition of headache that helps to distinguish the syndrome from other forms of depression, and usually it is a prominent

feature.

The headache most often starts in the neck and spreads to the top of the head, though may be experienced anywhere in the head or even may just be a heaviness or a feeling of mental clouding.

These headaches are difficult to distinguish from tension headaches, in that the pattern is similar. These seldom have the marked somatic associations described below and tension is often apparent in the patients' behaviour.

Migraine headaches are also similar in that in both visual disturbances, loss of appetite, nausea, vomiting and abdominal discomfort may be present.

Dizziness, paresthesia and transient muscle weakness may occur in both, but more commonly in Headache-Insomnia-Depression syndrome. In the latter, pruritis ani may be a feature.

The insomnia component is usually of the intermittent waking type as with the pre-coeliac children, rather than the early waking-up type as in endogenous depression and is often associated with restlessness and frightening dreams.

The depth of depression varies but can be deep enough to give rise to thoughts of suicide. It is often associated with irritability, bad temper and feelings of hostility; loss of weight and impotence may also be reported. Disturbed and anti-social behaviour such as shop-lifting have been encountered. Excessive drink-

ing of alcohol is common.

There are two main pointers to a diagnosis of Headache-Insomnia-Depression syndrome. The first pointer is the history of an infective illness or other predisposing cause occurring before the onset of symptoms; the second is getting a typical dietetic history.

**Predisposing causes**

Apart from viral encephalitis itself, the following infections are all capable of being complicated by an encephalitis and thereby can act as precursors to Headache-Insomnia-Depression syndrome:

Influenza; Pneumonia; Meningitis (any form); Septicaemia; Mastoiditis; Typhoid; Malaria; Q Fever and Brucellosis.

Some more chronic infections such as tuberculosis, syphilis and cystocercosis may also play a part.

Any other conditions which can cause brain damage or atrophy may predispose to the development of the syndrome under discussion. Examples are:-

head injuries; vitamin deficiencies such as pellagra; cerebrovascular accidents; anoxia at birth and during anaesthesia; metabolic disorders of renal, hepatic and pulmonary origin; endocrine disorders; alcoholism; childbirth; brain tumours and drug or other poisoning.

All these conditions can be associated with organic psychosis which may be present with

headache, insomnia and depression and should be born in mind when analysing any particular case.

Heavy metals may be concerned in some instances, bismuth and mercury in old-fashioned medicines, modern lighting creams and aluminium in cooking utensils.

### Obtaining a dietetic history

Getting a short description of how the patient feels when eating can be invaluable in these cases.

In Headache-Insomnia-Depression syndrome, the sufferer will often notice discomfort following eating food. His abdomen feels full up and distended, he notices a rapid or irregular heart beat, sometimes with dyspnoea he may also be aware of a feeling of tiredness, sometimes accompanied by excessive sweating.

These symptoms usually pass off after an hour or two, later to be followed by the symptoms of the syndrome itself.

Obtaining a short description of what the patient eats and drinks during a typical day, with the approximate quantities consumed, is well worth the few minutes that it takes to get it. Hippocrates said "The physician who neglects his patients' diet is a fool."

Quite often such an enquiry will reveal the intake of surprisingly high quantities of certain foods or drinks which may serve as pointers to the cause. Wheat, oat or maize containing foods, sugar, cool drinks, fruit, milk, eggs and meat may each be taken in absurdly large quantities by some people.

Alternatively there may come to light the regular consumption of foods or drinks known to be common headache producers such as alcohol or those containing methylxanthine (e.g. coffee, tea, chocolate and cola drinks).

Special enquiry should be made regarding white bread intake, because chlorine gas and chlorine-dioxide are still allowed to be used as flour improvers in South Africa. They act in a similar way to agene and therefore the bread made is suspect.

Food that has become stale, such as biscuits, may cause trouble and in this connection it is worth mentioning instant coffee and packet-soups, which sometimes are kept over-long in warm conditions in country stores.

### Associated pregnancy or abortion

The Headache-Insomnia-Depression

syndrome may occur during pregnancy or following parturition or abortion. The approach can be similar to that which has been described.

In addition, consideration must be given to two possible vitamin deficiencies that can occur at these times, those of Vitamin B6 (pyridoxine) and Vitamin B12 (the cobalamins). Both of these two vitamins are incompletely understood at the present time, so we can only guess at the cause of these deficiencies.

Nevertheless, what is certain is that there is a group which respond dramatically to therapy with either of the two vitamins or to both. Even if we don't quite know why we are doing it, I believe that it is imperative that we try this form of treatment at the earliest time we can.

### Other causes

If one draws a blank on these lines of enquiry, it is worth asking about working conditions or the inhalation of fumes from heaters or about smoking habits; each may give a clue. Detective work, an elimination diet or a diet diary may be needed if these questions fail to produce any pointers.

The most bizarre cause for the Headache-Insomnia-Depression syndrome that I have encountered was sensitivity to hair oil which proved to be the correct etiology in two cases.

### Associated hypertension

Headaches are commonly blamed on hypertension, but I often wonder whether the headaches are not caused in some other way for do we not frequently encounter headache-free hypertension?

In Headache-Insomnia-Depression syndrome the blood pressure may be considerably raised but this usually falls to normal with the successful treatment of the syndrome.

### Psychological aspects

I have purposely refrained from mentioning the purely psychological side of this syndrome, because it is the medical model to which I hope to draw attention. Nevertheless, the psychological aspects cannot be ignored.

Recent distressing event and stress of any sort can precipitate the syn-

drome and will always aggravate the condition once it has started. Not having any work to do or loneliness can also lead to depression as can the lack of an intimate relationship with a partner of the opposite sex.

A woman with three or more young children may become desperate over them and react by developing depression. Such factors as these will have to be disentangled from the metabolic factors already mentioned.

### Therapeutic considerations

Treating cases of the syndrome with psychotherapy and counselling will usually lead to some improvement as the result of the attention given, but if the condition is caused by metabolic disturbances, it is most unlikely to be fully effective.

Likewise those who fly to anti-depressant therapy, with or without psychotherapy, are also likely to be disappointed. The tricyclic anti-depressants are not only ineffective but also often seem to produce side-effects.

MAO inhibitors sometimes help in the short term but this benefit soon seems to fade away. Likewise Lithium salts seem to be of no avail.

Where judging from the patient's history, there seems to be some hormonal imbalance, treatment with progesterone or chorionic gonadotrophin is said by some to be effective but I have not had much experience with these preparations.

Time consuming though dietetic therapy may be, it is well worth the effort. If the offending foods or drinks are not suggested by a careful history, an elimination diet is the next step to take.

Should this procedure not be acceptable to the patient, a 'diet diary' can be suggested, wherein all foods and drinks taken during the twelve hours prior to starting an attack can be recorded. After a few such records have been made, a common denominator may be found and a suitable challenge with that substance arranged.

Once the causes of the syndrome have been identified, and they are often multiple, the choice lies with the patient whether to avoid them and be symptom free or to go on enjoying consuming the offending foods or drink and suffer the consequences.