

experiences do not exist. In the same patients we can see that the general adaptation syndrome (GAS) may not necessarily have Selye's three phases: a schizophrenic may have a deep bed-sore without showing any "alarm reaction"; his "adaptation" will consist of not reacting to the stressor. "Exhaustion" will, in fact, become the defence of the physically and mentally deteriorated organism. He will survive in conditions in which a normal individual will die of septicemia. The non-availability of iron ions or certain amino acids will make bacterial growth impossible, according to Massawe, Muindi and Swai.³

Nonspecificity v. specificity: Selye states "These terms may be applied to both the eliciting agent and the response." Should this be valid only "if the demand . . . is intense"? If the demand is not intense will the reaction be localized or will stress not occur at all? Does the local adaptation syndrome exist without GAS under normal conditions?

I do not think that the words "eustress" and "distress" are appropriate. They are used incorrectly when Selye states that eustress is "agreeable or healthy" but distress is "disagreeable or pathogenic". Electroshock therapy may be distressing but it often improves health. Everybody will agree with the "conditioning of stress" but does this mean that a stressor will not produce stress at any time, as Selye states?

At the meeting of the Canadian Society on Gerontology held in Toronto Oct. 22 to 24, 1975 I gave a paper "Senile psychosis and stress", in which I discussed the localized reaction to the pathogen in patients with organic brain syndrome.⁴

We may see very frequently that nevertheless the patient's reaction to the pathogen was inappropriate — in terms of "non psychogeriatric" medicine — the healing process is normal and those patients may show a very high biological resistance. The stress may involve a localized area of the damaged tissue or of the affected organ and humoral changes can perhaps more effectively take place precisely because of the diminished neocortical inhibition.

As a clinician I can hardly agree with the differentiation between "direct" and "indirect" pathogens. There is no doubt that the decisive factor in getting sick is the presence of a sensitive receptor. The worst cholera or smallpox epidemics have had their survivors. Therefore it is difficult to accept Selye's statement that "mechanical trauma, intense heat and strong acids or alkalis will cause tissue damage irrespective of the body's response".

Selye states that "diseases of adapta-

tion depend primarily upon an excessive or inappropriate response to indirect pathogens" but what will happen if there is no response at all? Man dies more often from fear and panic when he has a myocardial infarction (MI) than from myocardial necrosis.⁵ If we could prevent ventricular fibrillation only a few would die of MI. Does this mean that a schizophrenic who does not react to an acute MI has the appropriate reaction? Certainly not. What does Selye mean by "We are not yet perfect"? Are ants perfect because they are in excellent shape after having existed perhaps 10 times longer than man? Are mosquitoes now perfect because of their acquired resistance to chlorophenothane (DDT)?

The statement by Selye that "glucocorticoids . . . suppress many of the usually helpful, defensive, inflammatory or immunologic reactions" shows clearly how tricky and dangerous the classification into syntoxic and catatoxic agents can be. Glucocorticoids, if given in excessive doses or for an excessive period, produce side effects in the same way as digitalis or barbiturates.

The danger in applying concepts with seemingly general and definite validity is that problems may be oversimplified and appear to be solved by being labelled with a word. Lectures about stress induce "eustress", which is certainly "agreeable" but may not necessarily be "healthy".

S. HONTELA, MD
Psychogeriatric service
Douglas Hospital
Montreal, PQ

References

1. DARWIN CH: *The Descent of Man and Selection in Relation to Sex*, London, John Murray, 1871
2. CANNON WB: *Bodily Changes in Pain, Fear, Hunger and Rage*, 2nd ed, repr of 1929 ed, Washington, McGrath, 1970
3. MASSAWE AEJ, MUINDI JM, SWAI GBR: Iron and resistance to infection. *Lancet* 2: 314, 1974
4. HONTELA S: Senile psychosis and stress, in *Proceedings of the 2nd General Biennial Meeting of the Canadian Society of Gerontology*, Toronto, Oct. 22-24, 1975, p 4
5. ANDRUS EC: Emotional factors and cardiac function. *Biol Psychiatry* 10: 581, 1975

To the editor: I am glad to have the opportunity of seeing Dr. Hontela's letter. However, there is no point in discussing his innumerable questions in a letter, as every detail is dealt with at length in the 2nd edition of my book "The Stress of Life". Interested readers of the *Journal* will find readily accessible, although brief, discussions of the same subjects in the March and June 1975 issues of the *Journal of Human Stress* — one article by myself, and the other by John W. Mason of Walter Reed Medical Center, Washington.

HANS SELYE, CC, MD, PH D, D SC
University of Montreal
Montreal, PQ

Premature labour

To the editor: Dr. K.S. Koh reviewed the role of uterine relaxant drugs in the control of premature labour (*Can Med Assoc J* 114: 700, 1976) but failed to mention that nylidrin hydrochloride is the most effective β -sympathomimetic drug according to a controlled, double-blind comparison of placebo, ethanol, isoxsuprine and nylidrin in the treatment of 194 pregnant women in Helsinki's University Hospital.¹ The relative successes of the four treatments are summarized in Fig. 1. Nylidrin was

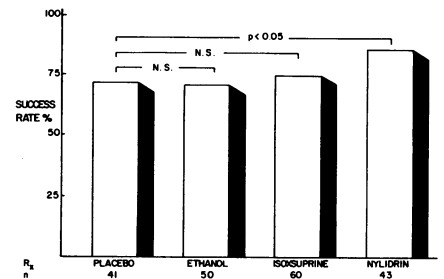


FIG. 1—Success rates of four agents used to treat premature labour.

the only form of treatment significantly superior to placebo. Otherwise Koh's article was excellent.

PIERRE BIRON, MD
Department of pharmacology
University of Montreal
Montreal, PQ

Reference

1. CASTRÉN O, GUMMERUS M, SAARIKOSKI S: Treatment of imminent premature labour. *Acta Obstet Gynecol Scand* 54: 95, 1975

To the editor: I thank Dr. Biron for pointing out the omission of nylidrin as a uterine relaxant drug in my review article on premature labour and for drawing my attention to this valuable drug. However, new knowledge is accumulating with such speed that any review of a subject must be read with a retrospective glance to the time it was written, rather than when it was published. The time interval between the submission and publication of my paper was slightly more than 1 year.

K.S. KOH, MD
Health Sciences Centre
700 William Ave.
Winnipeg, MB

Designing doctor shows restraint

To the editor: For my own safety I have designed and constructed a practical automotive passive restraint. Like many people I forget to fasten my seat belt and the seat belt buzzer conked out long ago. While the seat belt requires active fastening, my passive restraint is always there.

I wanted something that would be simple, effective and inexpensive. It has