the EXAMINER

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Editorial

PSYCHOLOGICAL AND PHYSIOLOGICAL ILLNESS IN AIR TRAFFIC CONTROL SPECIALISTS: WHAT TO LOOK FOR

The physician joining the American Academy of Air Traffic Control Medicine will be interested in the nature of the health care for a special and unique patient. The following information is compiled from a two year study of air traffic control specialists' medical problems.

It is important to realize that safe and convenient air traffic control in this jet age is a matter of men and not machines. Basically, the system of air traffic control operates with the assistance of less than 8,000 superbly trained men who have awesome responsibilites. The peculiar stresses and strains of this demanding profession are reflected in intertwined psychological and physical complaints. It is important for the physician to realize that a controller who appears in his office should be taken seriously. There are psychic defenses of denial and a controller myth that it is illegal to be ill; while the patient complains on one hand of numerous aches, he smilingly assures the physician that although other controllers may have these particular symptoms he is an exception and really is not ill at all. If the doctor recognizes that a controller is most likely to try to appear well when he is not, he will be thorough in his examination. He should know in what areas to direct his colleagues for observations that may better evaluate the patient.

The diseases which require special attention are both psychological and physiological. It is perhaps through self-selection that a controller has a special personality profile: compulsive-obsessive traits and psychic defenses of denial and repression are often present. While denial and repression are an asset at work during moments of stress, protecting the controller from the fearsome spectacle of error, these same defenses are a liability to the controller when he seeks medical care.

The cultural gap between the physician and the controller leads to unfortunate impasses: the controller lives in a unique cultural system in which epigastric distress, chest pain, and anxieties are common and thought to be "normal."

Psychiatric syndromes: Anxiety and depressive psychoneuroses are common but hypomanic elements in the controller personality often lead all but the expert observer astray. An interview long enough to establish confidence between the physician and the controller is mandatory; often the smiling controller will, after several minutes of dialogue, reveal a chronic and recurrent depression or an anxiety manifested by sleeplessness, nightmares, and various physical symptoms. Sometimes more florid psychopathology will be revealed. There are cases in which controllers were functioning adequately at their positions, but were seriously enough ill that hospitalization for their emotional difficulties was recommended. A careful background review by a nurse or office assistant or the use of the Minnesota Multiphasic Personality Inventory will sometimes set the controller more at ease and prime the pump for a more open discussion when a systems review is made by the examining physician.

Psychosomatic diseases: Certain stresses are likely to be reflected in the emotional and psychological sphere. This is particularly true when the subject has a choice so that he may avail himself of a solution and thus prohibit a psychological or physical disaster.

Gastrointestinal diseases are common among controllers. Experience has shown that the radiologist should be directed to pay special attention to the cardiogastric junction, pylorus, and duodenal bulb and to document these with serial radiographs. Special notations should be made as to stasis of fluid within the stomach and the texture of the mucosal folds.

Cardiovascular diseases: Cardiovascular problems are probably some of the most potentially severe that stalk the controller. Special care should be paid to single abnormal fluctuations of blood pressure. These elevations should not be overlooked in an unconscious collusion between the physician and controller to find him well. The standard practice of cardiac evaluation and of coronary artery diseases should be accompanied by other studies such as lipid fractionations.

Audiometric testing: Several examiners have found a strange and unexplained phenomenon - a loss in the low tone area. The ramifications of this are of great importance both

to the controller and to the flying public as these tones are in the voice range and any considerable difficulty while on position would cause strain on a controller, deplete his physical stamina, and thereby contribute to a lack of efficiency that might have serious effects on air safety. It has been stated that while on position there is sometimes a loss of low tones unilaterally accompanied by dizziness and vertigo (called Pseudo-Meniere's Disease).

The evaluation of disease in the air traffic controller is in the embryonic stage of discovery and will probably be clarified in the years to come as physicians are able to visualize a continuum of stress diseases.

W. Wayne Sands, M.D.
Editor

STRESS AND THE CONTROLLER

Hans Selye, 24 years ago, called attention to the diseases caused by stress - among them peptic ulcer, hypertension, and many others. We are presented now with a sizable group of men in the career of air traffic control who suffer from unremitting stress. An opportunity is present for the verification of the theory of the general adaptation syndrome. This moment is perhaps analogous to solar eclipses which, in a different science, provide a method for verification of Einstein's general theory of relativity.

What are some of the questions to be answered? Several which seem reasonable are as follows:

1. What are all the stresses in air traffic control? Is there a more important stress than others which, if solved, would reduce the incidence of stress disease?

2. If a high ulcer incidence in controllers is present in all high density areas, is this same incidence present in other stressful occupations such as truckers and railroad dispatchers?

3. Is there such an entity as an ulcer personality, or is stress ulcer (i.e., most peptic ulcers) characteristic of all people under stress?

4. What sociological or cultural factors are involved?

5. What are the ramifications of viewing people from the medical perspective of preventable stress? Are there pressing social problems outside of ATC which will find new solutions?

On the following page is a graph of the incidence of peptic disease in the first one hundred controllers examined by the author following the March, 1970, "sick-out." The discovery of a 32% ulcer incidence in this group was surprising but should have been expected. The full report will be published elsewhere.

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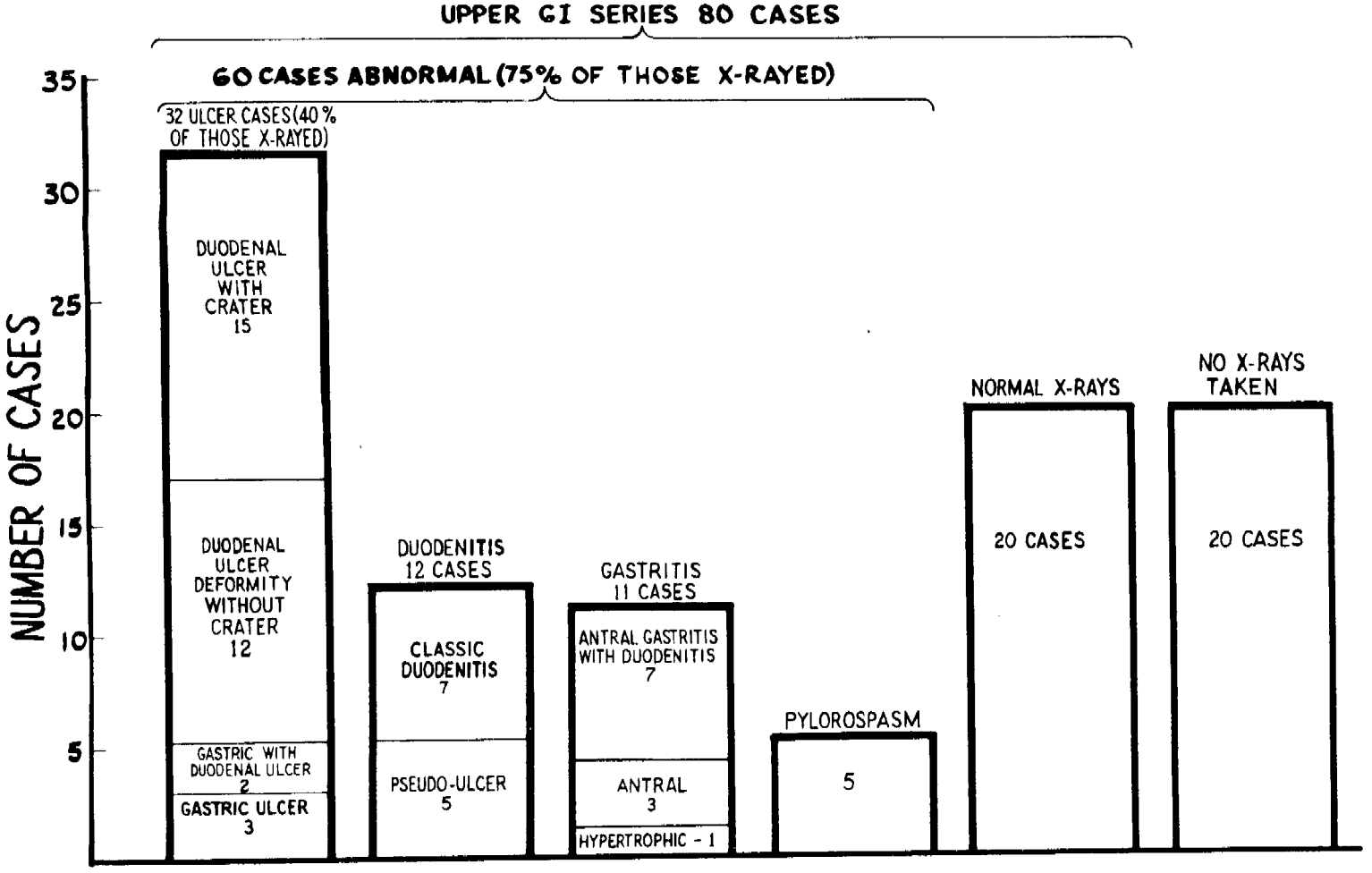
GASTRO-DUODENAL DISEASE IN 100 AIR TRAFFIC CONTROLLERS

"CONTROLLER'S STOMACH"



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