Dear John:

About 11 years ago I attended an ad hoc nomenclature committee meeting on a new group of agents called Coxsackie viruses by Dallort and C viruses by Melnick. My purpose was to point out the interests of the clinician as opposed to the more practical considerations of the virologists. Moreover, I had just found a “new” group of viruses that clearly caused a clinical illness called herpangina.

Although one or two of the herpangina viruses had already been described as a Coxsackie virus, I felt that the Coxsackie terminology was inappropriate and undesirable. However, I found that others at the meeting had similar viruses and wanted agreement on a term, so that they could classify their agents and get on with their work. I was outvoted and went along in the interest of consistent nomenclature. Later on I gave up a fairly established terminology based on clinical findings in our laboratory, namely, APC (adenoidal, pharyngeal and conjunctival) viruses. With your encouragement and in the interests of others actually working in the field and who had similar agents to be classified, my associates and I agreed on adenovirus. Both of these terms were selected precisely because they did not have specific clinical connotations, the viruses involved (like enteroviruses) having multipotential clinical behavior.

Although I was not certain then, I now recognize the wisdom of these decisions, since pathogenic activity in many if not most cases is a strain rather than a species character. I also perceive now a certain proprietary element in my original point of view—something less than a wholly objective view.

Now we are discussing the enteroviruses. Quite apart from other considerations, it is clear that the majority of those who have new candidate enteroviruses to classify find it virtually impossible to do so within the present subcategories of enteroviruses. They certainly are not proven to be “common cold” viruses.

Most of the new candidates (we have had 10 or more accumulate in our laboratory since 1956) grow primarily in human epithelium very like Coxsackie A viruses do. Some, but not most, strains go in suckling mice, and some, but not all, share immunologic properties with Coxsackie A’s. Cases in point are not our viruses, but Coe and Pett; we haven’t published ours (two of the most common serotypes were Coe and Pett) because until recently we haven’t been able to relate them completely to already reported Coxsackie A’s.
Like JH and 2060 and the Salisbury agents, Coe and Pett were reported originally as respiratory viruses. Now Coe and Pett, like JH and 2060, are included in the enteroviruses. This was done because they share fundamental properties and antigens with known Coxsackie A viruses, namely, A-21 and A-24. Like herpangina and other enteroviruses, they are more clearly established causes of respiratory disease than are the Salisbury agents.

But what about the numerous other similar viruses which have been isolated in human epithelium, but do not grow well or at all in monkey kidney or suckling mice (those include the Salisbury viruses)? Some of ours have immunological ties with Coxsackie's, some with certain ECHO's, occasional isolates paralyze mice. Where are we to classify them? Next year (like Coe last year), all of our strains of one or more of these serotypes will probably paralyze mice or even go well in monkey kidney - perhaps in green monkey and not in rhesus. The facts are that these growth and pathogenesis characters, as well as the character for producing human illness, are dependent on strain variations and are much too labile for classification purposes at this time. The present enterovirus subcategories have made the classification of new enteroviruses enormously expensive and virtually impossible, except for large laboratories like ours.

Now Sir Christopher proposes a new subcategory based on the overwhelming importance of the nose and nasopharynx and essentially a requirement that the viruses be put in human volunteers and proven to cause colds before they can be properly classified. There are other important parts of the body as well, and with better evidence I could claim that herpangina, myocarditis, and epidemic pleuropneumonia viruses must be put into additional subcategories as well, I remember well the discussions I have had with you and Sir Christopher on selecting simple and stable characters for classification and the need for agreement - particularly amongst those workers most active in the field who are concerned with classifying their viruses and therefore most concerned. Can it be that I sense now a proprietary element in Sir Christopher's point of view?

Like Sir Christopher, I have traveled through Europe too (twice this year), as well as in the United States. Except for the Salisbury group, those who have candidate enteroviruses are anxious for an early and simple solution to the classification hurdle. The simpler requirements for an enterovirus classification makes this possible. This does not of course downgrade the clinical importance of the agents any more than does the inclusion of the typhoid bacillus in the salmonella family or the viruses which cause EKC in the adenovirus family. Why didn't we break the adenoviruses down into EKC, ARD, etc.? - because we felt that it was more important to simplify and facilitate classification. We stated in the adenovirus paper that clinicians could best use the following terms, for instance: "Pneumonia due to adenovirus type 7", "ARD due to type 4", "Pharyngocconjunctival fever due to type 3 or 7 or 14", etc.
Polioviruses and most Coxsackie's will of course retain their present connotations. The diseases caused by the newer enteroviruses will be "aseptic meningitis due to enterovirus type 61" or "myocarditis to type 65", or "herpangina to type 70", or "common colds due to type 71" - or even, as seems likely, "to enterovirus type 16" (Coxsackie A-13). I haven't mentioned that in our studies of children the most common effects of known enteroviruses in young children are mild respiratory diseases which we (and our clinicians) are loathe to distinguish from common colds; even those caused by several outbreaks of Coxsackie B viruses.

Sincerely,

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