

A STUDY OF STREPTOCOCCI ASSOCIATED WITH SUBACUTE
BACTERIAL ENDOCARDITIS

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A collection of 113 cultures of streptococci isolated from 100 cases of subacute bacterial endocarditis has been studied in an attempt to classify them according to their physiological and serological characteristics. The results are tabulated in table 1.

The largest group, which consists of 45 cultures, could not be differentiated from *Streptococcus mitis*, the ordinary "greening" streptococcus found in the normal human throat. Twelve cultures possessed identical, or very similar, physiological properties with *Streptococcus bovis*. The identities of *Streptococcus faecalis*, *Streptococcus agalactiae*, and the group G strain were further confirmed

TABLE 1

SPECIES OR VARIETY	NUMBER OF CULTURES
<i>Streptococcus mitis</i>	45
" <i>Streptococcus s.b.e.</i> "	42
<i>Streptococcus bovis</i>	12
<i>Streptococcus faecalis</i>	5
<i>Streptococcus agalactiae</i>	4
Lancefield group G.....	1
Unclassified.....	4
Total.....	113

by serological methods. The rather low incidence of enterococci and the total absence of *Streptococcus salivarius* strains in this collection should be noted.

One group, which comprises approximately one-third of the cultures studied, seems to represent a hitherto unrecognized variety, or species, and is tentatively designated as "*Streptococcus s.b.e.*" This group of streptococci can be recognized easily by serological methods and by virtue of a rather unique pattern of physiological characteristics. These cultures characteristically produce a greening on blood agar, hydrolyze arginine, ferment inulin but not raffinose, and synthesize large quantities of a polysaccharide from sucrose in broth culture. According to preliminary results (Loewe, Plummer, Niven, and Sherman: J. Am. Med. Assoc., 130, 257) cases of subacute bacterial endocarditis caused by *Streptococcus s.b.e.* do not appear to respond so readily to Loewe's penicillin-anticoagulant therapy as do those cases from which other streptococci have been recovered.