LETTER TO THE EDITOR

ANALOGIES IN MEDICINE: VIOLIN STRINGS ADHESIONS

Belo Horizonte, August, 2013

Dear Sir

Brief history of the violin. The emergence of the violin in Upper Italy: The violin evolved from the viola da braccio family between 1520-1550, the Upper Italian towns of Milan, Brescia, Cremona and Venice being the most important centers. The term "violin" (from the Italian word violino) is derived from the word viola and had the general meaning "small stringed instrument" rather than "small viola". The earliest surviving violins are those made by the Cremonese violin maker Andrea Amati (1500-1576) in the year 1542. They still have only three strings: G3, D4 and A4. It was probably not until after 1550 that Amati made the first violins with four strings. Andrea Amati was therefore in all likelihood the first instrument maker to produce instruments with those characteristics that justified the appellation "violin".

The violin proved an enormous success in Italy, very quickly supplanting all the other "small stringed instruments" in the soprano register which were played in the "da braccio position" (arm position). No other instrument which had undergone the major part of its development before 1650 was accepted so readily as an essential part of musical practice; this was due to the limitless range of means of expression that it offered. The subsequent development of Western music history is linked closely to the further development of the violin's playing techniques and possibilities for expression. Whereas violins – and later, other members of the violin family – have always been played exclusively by professional musicians, the viol remained an instrument also adopted by educated lay musicians such as noblemen and merchants and as such was endowed with a certain social standing. Italian players introduced the new instrument to a wider audience at European courts.

The Golden Age (1600-1750): The violin's popularity led to the emergence of the most famous schools of violin-making: The Cremonese School was led by Amati's sons until Nicola Amati (1596-1684). The Brescian School produced master craftsmen such as Gasparo da Salò (1540-1609) and his pupil Giovanni Paolo Maggini (1580-1632). The Cremonese School continued with Nicola Amati's pupil Andrea Guarnieri (1626-1698) and later Antonio Stradivari (1644-1737), who was presumably a pupil of Guarnieri's. Antonio Stradivari, who made around one thousand instruments during his career of which 600 are said to be still in existence, is still regarded as the apogee of the art of violin-making. Despite repeated attempts, which continue today and make use of the most modern technology, it has proved impossible to reproduce the sheer brilliance of timbre of a Stradivarius. The dimensions of Stradivari's model were accepted as definitive by later generations.

Giuseppe Guarnieri, known as "del Gesù" (1698-1744), made instruments that were appreciated chiefly on account of their sustaining tone. Niccolò Paganini (1782-1840), the greatest violin virtuoso of all time, played a Guarnieri ¹.

Dr. Malcom M. Stanley3: "Peritonitis of the upper part of the abdomen in young women occurring during the course of gonorrhea was first described as a definite syndrome in 1919 by Carlos Stajano, in a paper

read before the Society of Obstetrics and Gynecology of Montevideo, Uruguay. In his subsequent publications the clinical features of the acute stage of the disease were completely and graphically depicted. Little information of a clinical nature has been added since. Unfortunately, none of his work, printed in Spanish and French, was widely circulated in the United States. Hence it was not until 1930 that Curtis called attention to the frequent coexistence of gonococcic salpingitis and violin string adhesions between the anterior surface of the liver and the anterior abdominal wall discovered at operation – conditions indicating, presumably, a chronic, healing or healed perihepatitis. Fitz-Hugh, in 1934, described three cases in the acute stage, including one in which laparotomy was performed; in smears of the draining secretions from the wound Gram-negative intracellular diplococci were seen. Since then numerous articles have appeared in the literature, and the clinical entity has been well documented"³.

Pelvic inflammatory disease (PID) is a disorder characterized by pelvic pain, adnexal tenderness, fever and vaginal discharge; it results from infection by one or more of the following organisms: gonococci, chlamydiae, and enteric bacteria. The gonococcus continues to be a common cause of PID, the most serious complication of gonorrhea in women. Chlamydia infection is another well-recognized cause of PID².



Fig. 1 - Laparoscopic view of violin string adhesions. Diagnostic picture tests in sexually transmitted diseases - Taylor, PK, 1995. Bristol Royal Infirmary, Bristol, England.

In about one half of infected women, gonorrhea remains asymptomatic. The other infected women initially exhibit endocervicitis, with a vaginal discharge or bleeding. Infection often extends to the fallopian tubes, where it produces acute and chronicle salpingitis and eventually PID.

From the fallopian tubes, gonorrhea spreads to the peritoneum, healing as fine "violin string" adhesions between the liver capsule and the parietal peritoneum (Stajano - Fitz-Hugh - Curtis syndrome) (Fig. 1).

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