

Letter to the Editor

Pablo Picasso's *sfumato*

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Art is a lie that makes us realize the truth
Pablo Picasso

Smoking is a part of history, culture and life. Ever since the pre-Columbian era and well up to the 20th century, when it was finally removed from pharmacopoeias, the tobacco plant *Nicotiana* has been used for medicinal purposes. Since the 16th century, tobacco came to feature in many European pharmacopoeias, recommended by physicians as therapy for catarrh, fevers, cold, digestive aid, as prevention of hunger and thirst, and even as a narcotic. After the isolation of nicotine in 1828, the medical society became more distrustful; becoming aware that tobacco contains a harmful alkaloid (1). However, tobacco smoking remained one of the most practiced ways of expressing one's personality.

Tobacco has always had a presence in art. Even when it became clear that it is one of the most common causes of death and disease, tobacco was still smoked in movies, on theatre stages, even in health institutions. Well into the 1960s, tobacco companies relied on a number of celebrities to endorse their products. Moreover, it became common practice to include images of physicians in advertisements.

In her paper reviewing the medicinal uses of tobacco in history, Anne Charlton suggested *we should set aside prejudices generated by ill effects of tobacco smoking and examine the leaves systematically for substances of therapeutic value* (1). The purpose of this letter was to draw attention to a possible association between Pablo Picasso's perinatal asphyxia and the role of nitric oxide contained in cigarette smoke in lung physiology.

The case history of Pablo Picasso

Pablo Picasso, one of the most prominent artists of the 20th century, was born on October 25th, 1881. The birth followed after what was described as a "very rough delivery". Upon birth, the midwife thought that he was

stillborn, so she left him on a table and attended to his mother. Picasso's uncle, a doctor named Don Salvador Ruiz, was present and he, just like many other doctors of the period, smoked big cigars so he blew cigarette smoke into the baby's face. Picasso later "recalled": "To this I immediately reacted with a grimace and a bellow of fury" (2).

Nitric oxide as a pulmonary vasodilator

Acute perinatal asphyxia is associated with reversible pulmonary vasoconstriction. Abnormal transition at birth can result in neonatal hypoxemic respiratory failure (3).

Cigarette smoke contains a large number of harmful compounds. It also contains large concentrations of nitric oxide. Reports in the literature vary, but it has been reported that fresh cigarette smoke contains from 300 to 500 ppm nitric oxide (4).

Inhaled nitric oxide causes selective pulmonary vasodilatation. As previously reported, breathing nitric oxide at concentrations of 5 to 80 ppm completely and rapidly reversed hypoxic pulmonary vasoconstriction in a newborn lamb with transitional circulation and severe respiratory acidosis. (5)

Although it commands much less attention than it once did, anecdotal evidence has been a source of much of our knowledge regarding synthetic medicine, as well as plant derivatives. In Pablo Picasso's example, it is possible to conclude that following a traumatic birth, mild to moderate asphyxia developed, which led the midwife to conclude that the baby was stillborn. The asphyxia led to pulmonary vasoconstriction with a transitional circulation and respiratory acidosis. The high levels of nitric oxide in the cigarette smoke blown by Picasso's uncle led to a complete reversal of hypoxic pulmonary vasoconstriction and the life of the future artist was saved, not to mention modern art in general.

Pablo Picasso introduced the world to a new way of looking at art, teaching us how art can be seen in a number of ways, dimensions and angles. Much like tobacco is both destructive and attractive; Cubism shocked and fascinated the world. And if the drama of Picasso's birth was the sign of a revolutionary artist coming, the clarification of the

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physiological mechanism that marked it sheds new light on the otherwise almost exclusively harmful effects of tobacco. The smoke blown by Don Salvador most probably saved his nephew's life. This was Picasso's only but surely most vital *sfumato*.

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