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SCIENTIFIC LETTER

Vaping: The new problems of a new epidemic and the importance of paediatricians in their prevention*

Vaping: los nuevos problemas de una nueva epidemia y la importancia de los pediatras en su prevención

Dear Editor:

In 2014, the Oxford English Dictionary named ''vape'' word of the year, a verb meaning ''to inhale and exhale the vapour produced by an electronic cigarette or similar device. In Spain, the first devices used for vaping, known as e-cigarettes, entered the market in 2007, and their use has grown considerably since.[1]

Vaping originally emerged as a strategy to quit smoking, a tool for everyday smokers to overcome nicotine dependence, but turned out to be a double-edged sword. The data regarding the efficacy of e-cigarettes as an aid to quit smoking are contradictory, while their use is expanding among nonsmokers, especially in the young population, and not only to deliver nicotine but also other substances, such as cannabinoids, tetrahydrocannabinol, marihuana or a variety of oils.[2] Multiple studies have warned that vaping has had the opposite effect in youth, with its use associated with progression to conventional smoking.[1,2] In the United States, vaping has become a public health problem in the adolescent population, as use of e-cigarettes has become widespread and 1 out of every 11 middle school students reports consuming them.[2] Vaping in the young population is also growing in Spain, where 1 out of every 4 users of e-cigarettes does not have a previous history of tobacco use.[1]

At present, a variety of battery-operated devices are available to inhale aerosolised substances. Although social acceptance of these devices is greater, the legislation on their use is underdeveloped, and they have been marketed as a preferable alternative to conventional smoking. However, significant conflicts of interest have been reported in studies on the subject,[3] and the development of cases of severe pulmonary disease associated with their use has caused widespread concern in recent months.[4–6]

Research on the effects of vaping is currently insufficient. Side effects have not been associated solely to classic vaping products (nicotine and cannabinoids), but oils and chemicals used in the different flavours may also be harmful to health.[4,5] The potential of inhaling chemicals with unknown effects is high, and it is difficult to determine the amounts that are being inhaled (which depend on the product consumed, its concentration and the device used for delivery) or the source of the product. Recently, evidence has emerged warning of potential, hereto unknown side of vaping. The Centers for Disease Control and Prevention (CDC) and the health authorities of the United States are collaborating to investigate the growing number of cases of severe lung disease associated with e-cigarette use, urging doctors to actively collect data on this potential association.[4] There have been reports in previously healthy youth of cases of acute lung disease presenting with cough and chest pain with quick progression to dyspnoea and severe respiratory failure, sudden onset sometimes associated with fever, gastrointestinal manifestations (such as vomiting or diarrhoea) and systemic manifestations. According to different publications of the CDC, the first case of severe pulmonary disease associated with vaping was diagnosed in July 2019, in August 110 cases had been reported in 15 states, and in September the case count had already risen to 500.[4] The definition of the CDC of a confirmed case of pulmonary disease associated with vaping is a patient reported use of an e-cigarette (vaping) or dabbing in the 90 days before onset with evidence of pulmonary infiltration on chest plain radiograph and in the absence of an alternative plausible cause,[5] and, along with the Food and Drug Administration (FDA) of the United States, it has been investigating its relationship with cases of convulsive seizures since its initial statement warning of this potential side effect.[6]

In conclusion, e-cigarette use is increasing among our youth and vaping is associated with an increased risk of starting to smoke conventional cigarettes, their long-term effects have not been investigated adequately, and at present both the CDC and the FDA are researching potential severe adverse effects.

As paediatricians in Spain, whether in primary care or at the hospital level, we must be prepared to face this new epidemic. Recommendations against tobacco given in primary care must now be accompanied by recommendations against vaping, and we must also warn of the risks involved in passive exposure to vaping products. Educational materials must be developed to provide to our patients and their families. We must directly ask adolescents about their use of e-cigarettes and warn parents about them, as use is difficult to detect due to their near non-existent smell. Furthermore, in case of acute respiratory diseases or convulsive seizures of unclear aetiology in adolescents, we must rule out a poten-

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tial association with vaping, and start a national register of potential cases.

In light of all of the above, I consider that working groups should be created in the *Asociación Española de Pediatría* to detect and study potential side effects of vaping, and urgent strategies developed to prevent e-cigarette use in our patients.

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Primary immune thrombocytopenia: A review of cases in a district hospital☆

Trombocitopenia inmune primaria: revisión de casuística en un hospital comarcal

To the Editor:

Primary immune thrombocytopenia (ITP) is the most frequent acute form of thrombocytopenia found in previously healthy children. It is an acquired disease that manifests with a transient or persistent drop in the platelet count (<100 000). Several factors have been found to be associated with primary ITP, such as recent viral infection or administration of certain vaccines. It also exhibits a seasonal pattern with a higher incidence in winter and spring.[1]

The severity of the disease is determined based on the haemorrhagic manifestations, which do not always correlate to the platelet count. The severity can be categorised applying the criteria used in the United Kingdom[2] (asymptomatic, mild symptoms, moderate symptoms or severe symptoms).

There are several treatment options that depend on the chronicity and severity of the ITP. According to the working group on ITP of the Sociedad Española de Hematología y Oncología Pediátricas (Spanish Society of Paediatric Haematology and Oncology, SEHOP),[3] the treatment options for newly diagnosed ITP, depending on the severity and risk factors, are: observation, steroid therapy (oral prednisone or intravenous [IV] methylprednisolone) and intravenous immunoglobulin (IVIG). Chronic ITP can be treated with thrombopoietin receptor agonists, such as eltrombopag (via the oral route).

In 2017, the Department of Health detected an increase in the prevalence of ITP in our region, with a tendency to relapse in certain patients. Since there is no specific register of Spanish children with ITP, we thought it would be relevant to review the epidemiological and clinical characteristics of our patients. To that end, we carried out a retrospective descriptive study by selecting cases with diagnostic codes 287 and D69 of the International Classification of Diseases, Ninth Revision (ICD-9) in the Corporate Analysis Platform of the Department of Health of Valencia (ALUMBRA). We then collected data on the variables under study from the health records of the selected patients, entering and encoding the data in an anonymised database.

We included children aged 0 to 15 years with a diagnosis of idiopathic thrombocytopenic purpura or primary immune thrombocytopaenia managed in our department between 2002 and 2017. We excluded patients with a neonatal diagnosis.

The independent variables were: infection or vaccination in the month preceding diagnosis, age at diagnosis, month of onset and sex.

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