We present a prospective study, conducted from the second week of March 2020, on the detection of respiratory viruses in patients with clinically suspected SARS-CoV-2 infection (COVID-19). The minimum required symptoms were fever >38 °C and cough with some sort of epidemiological history, whether geographical or personal (contact).[1]

Nasopharyngeal exudate was taken from each patient and sent to the laboratory in a virus transport medium (Vircell Transport Medium [VTM], Vircell, Granada). SARS-CoV-2 was detected by means of a commercial real-time reverse transcriptase–polymerase chain reaction (RT–PCR) assay which uses the sequences that correspond to the E, RpRd and N genes (Allplex™ 2019-nCoV Assay; Seegene, South Korea).[2,3] Respiratory viruses were detected from the same sample using a multiplex real-time PCR assay (Allplex™ Respiratory Assay; Seegene, South Korea) for simultaneous and differential detection of 21 different viruses.

In this study, 183 consecutive samples were analysed; of them, 48 (26.2%) tested positive for SARS-CoV-2 and 4 (2.1%) showed concomitant infection with this virus and rhinovirus in 2 cases, influenza B virus in one case and coronavirus OC43 in one case (28.3% positive for SARS-CoV-2). In 35 (19.1%) samples, only other respiratory viruses were detected: 13 cases of rhinovirus, 7 cases of influenza A virus, 5 cases of metapneumovirus, 3 cases of influenza B virus, 3 cases of coronavirus OC43, 2 cases of enterovirus and 2 cases of respiratory syncytial virus A (RSV-A). The remaining 96 (52.4%) samples were considered negative (with no other viruses present). Overall, 47.6% of all the respiratory samples tested positive for some type of respiratory virus.

There are few studies on the detection of other respiratory viruses in patients with suspected COVID-19. In a study by Bordi et al.[4] in 126 patients in Italy, only 3 cases of SARS-CoV-2 were detected (2.4%) versus the 48 (26.2%) in our study. This was because the Italian study was conducted at the start of the pandemic, with a low incidence of infection caused by the novel coronavirus.

This data is corroborated by the fact that said study detected influenza viruses in 28.5% of its patients, while our study only detected 11 cases of influenza (6%), probably because our study was conducted at the end of the current seasonal influenza epidemic. The percentage of negative samples in our study was 52.4% versus 44.4% in the Italian group, but it should be noted samples were tested not only for viruses but also for other bacteria (5.6%). A Chinese study by Lin et al.[5] reported a 40.8% rate of negativity versus other respiratory viruses, considering that an undetermined percentage could be caused by other respiratory pathogens.

Our study detected 4 patients (2.1%) with concomitant infections with SARS-CoV-2 and other respiratory viruses, whereas the same rate in the Italian study was 4.8%.[4] The viruses detected in our study were the same as those reported by Bordi et al.,[4] apart from coronavirus OC43, of which those researchers did not detect any cases. This virus is also a beta-coronavirus, but belongs to subgroup 2a, and therefore genetically distant from SARS-CoV-2 (*Sarbecovirus* 2b). As a result, we do not believe that represents cross-amplification. Furthermore, among the cases that tested positive for other viruses and negative for SARS-CoV-2, we also detected 3 patients infected with coronavirus OC43, which was prevalent in the conventional respiratory infections during the study week. A Chinese study by Lin et al.[5] on concomitant infections between SARS-CoV-2 and other respiratory viruses detected 18 patients (9.7%) with this type of infection; this percentage was higher than that detected in this study and the Italian study, although the Chinese study was conducted in the second week in January 2020.

These preliminary studies suggest that SARS-CoV-2 would behave like all other conventional respiratory viruses in that it would present as a concomitant infection in a variable percentage (4%–9%). Therefore, initial detection of influenza or RSV as a process for ruling out COVID-19 should not be continued. If this new infection is suspected, inevitably, it is necessary to initially rule out this virus and then, if possible, simultaneously test for other respiratory viruses.

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https://doi.org/10.1016/j.eimce.2020.11.005

Thyroid abscess of polymicrobial origin in a child☆

Absceso tiroideo de origen polimicrobiano en un niño

Acute suppurative thyroiditis (AST) and thyroid abscess are infectious processes in the thyroid gland that are extremely rare, accounting for 0.7%–1% of all thyroid disorders.[1] This low prevalence is due to the thyroid gland's intrinsic resistance to bacterial invasion, as a result of both its chemical and its anatomical characteristics.[2] In most cases, the infection's portal of entry is unknown, but colonisation of a distal region appears to be the most common cause.[3–6] Initial clinical signs are usually non-specific and difficult to detect, with painful inflammation developing in the anterior neck area as the condition progresses. This is a potentially serious condition.[1]

Ultrasound is the first-line imaging technique.[7] Treatment is based on intravenous broad-spectrum antibiotics aimed at covering germs in the patient's oropharyngeal flora. Fine-needle aspiration biopsy or surgical drainage must be performed if the clinical course demands it.[8] With early diagnosis and treatment,

☆ Please cite this article as: Cervantes-García E, Gavilán-Martín C, Ferrández-Mengual D, Nso-Roca AP. Absceso tiroideo de origen polimicrobiano en un niño. Enferm Infecc Microbiol Clin. 2021;39:53–54.

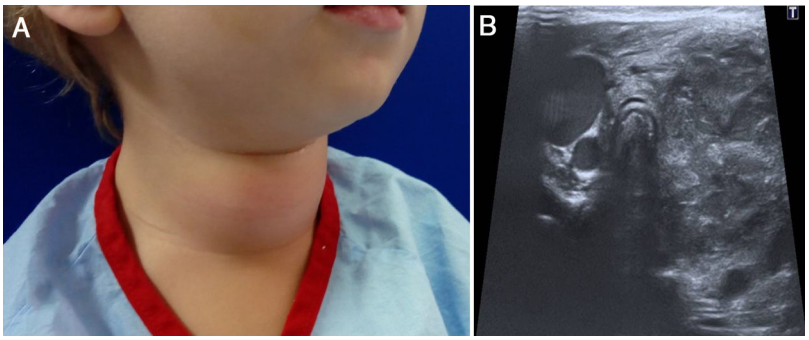

Figure 1. A) Cervical tumour in the hospitalised patient. B) Collection of heterogeneous echogenicity consistent with a left thyroid abscess measuring 38 mm × 26 mm.

the disease usually has a good prognosis. We report a case of acute suppurative thyroiditis complicated by a thyroid abscess.

A previously healthy 3-year-old boy had a fever up to 39.5 °C and odynophagia for the past 3 days. He presented with firm, painful swelling of the anterior neck slightly to the left with local erythema (Fig. 1A). Blood testing revealed leukocytosis (18×10^9/l) with neutrophils 74.3% and lymphocytes 15.6%, C-reactive protein (CRP) 11 mg/dl and erythrocyte sedimentation rate (ESR) 38 mm/h. His thyroid hormone levels and antithyroid antibody levels were normal. An ultrasound of the neck showed enlargement of the thyroid gland at the expense of the left thyroid lobe, with a heterogeneous echostructure and an uneven hypoechoic area consistent with an in trathyroid abscess measuring 12 mm × 10 mm. Given the clinical picture consistent with a thyroid abscess, parenteral antibiotic therapy was administered with amoxycillin/clavulanic acid. After 48 h had elapsed since the start of treatment, the patient's fever disappeared and his laboratory test results improved; however, the swollen area on his neck increased in size. A follow-up ultrasound showed that the collection had enlarged up to 38 × 26 mm (Fig. 1B). Given the patient's poor clinical course, percutaneous abscess drainage was performed, yielding 30 mL of purulent material. In the days that followed, the patient made good progress with the swelling of his neck and his inflammatory signs gradually disappearing. Microbiological testing isolated *Streptococcus con stellatus* and *Eikenella corrodens* which were sensitive to the antibiotic therapy administered. Blood culture was negative. Following 10 days of intravenous antibiotic therapy, the patient was discharged to complete his treatment with oral amoxicillin/clavulanic acid for 11 days. Subsequent clinical monitoring was normal and magnetic resonance imaging (MRI) was performed which ruled out anatomical malformations.

Thyroid abscess is a very rare clinical condition that can occur in the context of acute suppurative thyroiditis, a disease that is unusual in itself.[9] It can occur at any age, but it is rare in childhood.[10] Its clinical presentation is characterised by inflammation and an increase in sensitivity in the anterior region of the neck, accompanied by fever and pharyngeal pain. As the initial signs are subtle, diagnosis is late in most cases.[9] The left thyroid gland is more commonly affected, since the cause is usually a pyriform sinus fistula and thyroid function is usually normally, as in the case reported.[7] The initial test of choice is an ultrasound of the thyroid gland. To rule out predisposing anatomical defects, and when retrosternal spread is suspected, a computed tomography (CT) scan, MRI or an oesophagogram is performed. Our case was exceptional because it involved a previously healthy boy with no associated anatomical abnormalities. Ultrasound-guided fine-needle aspiration biopsy is a simple procedure that enables diagnostic confirmation and yields a sample for microbiological testing.[4,6] The most commonly found micro-organisms are polymicrobial flora in the oral cavity, due to its anatomical cause. They are often Gram-positive bacteria such as *Staphylococcus aureus* and *Streptococcus pneumoniae*. More rarely, Gram-negative pathogens *(Escherichia coli, Haemophilus influenzae, Klebsiella, Salmonella)*, *Mycobacterium tuberculosis* or fungi may be isolated.[4] Therapeutic management includes empirical parenteral antibiotic therapy with broad-spectrum antibiotics.[10] Surgery is indicated if there is any airway compromise or, in a second stage, if a pyriform sinus fistula is found.

Thyroid abscess is therefore very rare and requires strong clinical suspicion and early therapeutic management. Although the clinical course in most cases is benign, it should be considered a medical emergency due to the serious associated complications.

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https://doi.org/10.1016/j.eimce.2020.11.006