Severe acute colitis induced by ipilimumab

Colitis aguda grave consecuente a ipilimumab

Ipilimum (Yervoy®) is a humanized IgG monoclonal antibody that specifically blocks the inhibitory signal of cytotoxic T lymphocyte antigen 4 (CTLA-4) which results in T cell activation, proliferation and lymphocyte infiltration into tumors, leading to tumor cell death. Since its approval, by the Food and Drug Administration (2011), ipilimumab became a new tool for the treatment of metastatic melanoma leading to an improvement in survival rates worldwide.\(^1\)\(^2\) Thereafter, new types of toxicities have been described with ipilimumab (and related agents), the so-called “immune-related adverse events” (irAEs). The most frequent irAEs affect the skin and gastrointestinal tract, in up to two-thirds of the patients.\(^3\)\(^4\) In November 2013, the European Commission has approved it use as a first-line agent for the treatment of advanced melanoma. Due to the widespread use of this agent, clinicians should be aware and familiarized with the adverse events related to ipilimumab.

A case of a 62-year-old man with a retroauricular melanoma is reported, in whom it was decided to initiate ipilimumab as second-line chemotherapy (after tumor progression with conventional first-line chemoradiation therapy). Twenty-four hours after first infusion, the patient reported a diffuse abdominal pain and a mild bloody diarrhea (3–4 bloody stools/day). Two days after a second scheduled administration, fever (38–39 °C) and vomiting were added to the previous symptoms. At this point, it was decided to withdraw ipilimumab and the patient was given loperamide and reinforced oral hydration. Despite these measures, the patient remained symptomatic leading to an admission in our ward. At presentation he was febrile (38.9 °C), hemodynamically stable, moderately dehydrated and in the abdominal examination he had a localized tenderness in the left iliac fossa. The laboratory results showed no anemia ([Hb]=14g/dL), no leukocytosis but a markedly elevated C-reactive protein (20 mg/dL; reference value: <0.5 mg/dL). Standard stool examinations for bacteria, Clostridium difficile (toxin), ova, cysts and parasites were negative. On using plain abdominal radiograph and}

Figure 1  Plain abdominal radiographs (A) and abdominal US (B and C): Gross dilation of the transverse colon (diameter of 6.4cm). Abdominal US showed no intra-abdominal complications, revealing only a slight thickening of the sigmoid wall (5–6mm).
abdominal ultrasound (US) no sign of perforation or collection was noticed. Following a discussion with his assistant oncologist it was decided to start intravenous steroids (prednisolone 40 mg/day). After seven days of treatment the symptoms improved significantly and the patient was discharged with 20 mg of prednisolone/day per os. Seventy-two hours after discharge, the patient returned to our clinic complaining about an increase in the bloody stool frequency (7–10 per day). At that time, he was hypotensive, normocardic and afebrile. Remaining physical examination was unremarkable. It was decided to reinstitute prednisolone at a dose of 40 mg/day, intravenously. Despite those measures, symptoms were refractory and the bloody diarrhea did not resolve so fast as it was expected to. On the seventh day of treatment, the patient had a massive hematochezia, with [Hb] drop (to 9 g/dL) and C-reactive protein rise (30 mg/dL). Plain abdominal radiographs (Fig. 1A) showed a dilated transverse colon (with a diameter of 64 mm) consistent with a megacolon by radiological criteria. Abdominal US showed no intra-abdominal complications, revealing only a slight thickening of the sigmoid wall (5–6 mm; Fig. 1B and C). A left colonoscopy was performed (Fig. 2), demonstrating a patchy but extensive and deep ulceration of the left colon, from the splenic flexure until the sigmoid colon, sparing the rectum. The ulcers were covered with exudates and fresh blood. Histological findings were non-specific, demonstrating a mixed inflammatory component (with a lymphoplasmocytic infiltrate of B and T cells), lymphoid aggregates and eosinophils, extensive ulceration and granulation tissue. On the base of the ulcerated tissue, aspects of fibrinoid necrosis of the vessels wall and fibrin clots were visible. Immunohistochemistry excluded the presence of cytomegalovirus inclusions. Broad spectrum antibiotics were promptly initiated and steroid therapy was optimized to 100 mg/day intravenously (prednisolone 1.5 mg/Kg/day). After 5 days, there was a significant clinical improvement, the patient had less than 3 bowel movements/day (without blood), no abdominal pain and was afebrile. Laboratory tests revealed a marked decrease in C-reactive protein (3.7 mg/dL), no leukocytosis and a stable [Hb] (10.8 g/dL). After ten additional days, the patient was discharged, medicated with 100 mg/day of prednisolone per os followed by a slow weaning course (lasting 8 weeks). Ipilimumab was permanently withdrawn and the patient remains asymptomatic after steroid stoppage.

As ipilimumab administration has shown a survival benefit in metastatic melanoma, more patients are likely to receive this therapy, and therefore, it is expected that ipilimumab induced gastrointestinal irAEs will be encountered more often. In such scenarios (severe hemorrhagic diarrhea), the performance of a lower endoscopy is recommended to confirm or rule out other possible etiologies (e.g., opportunistic infections); however, one must bear in mind that the risk of perforation has been reported to be as high as 20%. Our case underlines some important clinical aspects and therapeutic quandaries when facing

Figure 2 Endoscopic findings (left colonoscopy) showed a severe ulcerated, patchy and hemorrhagic colitis, involving the splenic flexure until the sigmoid colon.
these situations, first, the importance of offending drug withdrawal and second, optimal steroid dose administration as recommended by the manufacturer, as well as a slow steroid tapering in order to avoid an early and, sometimes, steroid-refractory recurrence.7,8 In cases of steroid-refractory colitis, infliximab therapy (5 mg/kg, usually a single dose), as a second-line treatment, should be considered.9,10

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Ethical approval
Informed consent was obtained from the patient.

Bibliografía

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Hemorragia digestiva alta secundaria a un proceso linfoproliferativo infrecuente

Upper gastrointestinal bleeding due to an uncommon lymphoproliferative process

Los tumores gástricos representan el 3% de las causas de hemorragia digestiva alta1, siendo la neoplasia más frecuente el adenocarcinoma gástrico, muy por delante de otro tipo de tumores como los linfomas. Habitualmente, los linfomas gástricos son de estirpe B, fundamentalmente los tipo MALT (linfoma de tejido asociado a la mucosa) y los linfomas B difusos de células grandes. Por el contrario, los linfomas derivados de células T son excepcionales en esta localización1.

Presentamos el caso de un paciente varón de 86 años que ingresó en nuestro servicio por deposiciones meteánicas de 15 días de evolución, sin repercusión hemodinámica. Entre los antecedentes personales destacaba una cardiopatía isquémica tipo infarto agudo de miocardio, estando doblemente antiagregado con ácido acetilsalicílico y clopidogrel. Recibía tratamiento gastroprotector con omeprazol 40 mg/día. El examen físico era irrelevante y en los datos de laboratorio destacaba una anemia moderada de perfil ferropénico con hemoglobina de 10,2 g/dl.

Se realizó una gastroscopia que objetivó la presencia de una lesión ulcerada y friable al roce, de unos 5 cm de diámetro y aspecto submucoso, que se localizaba en curvatura mayor de cuerpo gástrico bajo. Tras la toma de biopsias y ante la sospecha de una neoplasia gástrica, se solicitó el estudio de extensión mediante una TAC toracoabdominopélvica que mostró una tumoralización de la pared anterior del antro gástrico de 5,7 × 15 cm. Así mismo, se detectaron adenopatías en el epipán y en la ventana aortopulmonar consideradas patológicas por sus características radiológicas, y por presentar una captación similar a la masa primaria en la gammagrafía realizada posteriormente (fig. 1).

El informe anatomo patológico de las biopsias de la masa gástrica describió una mucosa con proliferación de células atípicas distribuidas en sábana ocupando la lámina propia. La relación núcleo-citoplasma era elevada y se distingüían núcleos hipercromáticos e irregulares así como frecuentes figuras de mitosis, muchas de ellas atípicas. El resultado de las técnicas de inmunohistoquímica resultó positivo para CD3, CD4, CD43, CD79a y negativo para CD19, CD20, CD30, CD56 y CD2. El índice de proliferación Ki67 fue muy elevado, cercano al 100% de la celularidad. No se detectó presencia de Helicobacter pylori (HP) ni tampoco del virus de Epstein-Barr. En conjunto, el estudio inmunohistoquímico era compatible con linfoma primario gástrico T.

El paciente fue derivado al servicio de hematología del mismo centro, quien amplió el estudio con aspirado de médula ósea, y citometría de flujo de médula ósea y sangre periférica. No se determinó la serología para HTLV-1. El estadio del paciente fue III E según la clasificación de Ann Arbor. Se detectó como hallazgo casual una leucemia