Splenic abscess is a rare clinical condition and remains a diagnostic dilemma. Clinical presentation is non-specific and the diagnosis is often delayed. Ultrasonography and CT scan are the gold standard. The treatment is still controversial: antibiotic therapy, percutaneous drainage (PCD) or splenectomy. The treatment was splenectomy. The samples of collected liquid were positive for Escherichia Coli. The other therapeutic options like antibiotic therapy and PCD, can be used only in particular cases, but without the same efficacy.
3. Discussion

Isolated splenic abscess is an unusual disease. The incidence is between 0.2% and 0.7% [12]. The diagnosis of splenic abscess can be difficult because the clinical features are nonspecific; fortunately, modern imaging has improved the diagnostic process, even if in our case both the CT scan and the US did not give us the right diagnosis. To confirm the diagnosis of splenic abscess 3 typical features were lacking at CT scan: the “rim-enhancement” of the outside-facing portion of the abscess wall, inhomogeneous density of the content and gas formation [13]. Fever is the most common symptom seen followed by abdominal pain and tender mass to the palpation [14]. However, in our case, the patient only had abdominal pain. Since the most likely hypothesis was that of a blood collection we decided to monitor the patient and repeat a CT scan after 7 days to detect any evolution of the lesions. However, we put the patient under antibiotic coverage. Predisposing conditions to the development of a splenic abscess are trauma, metastatic hematogenous infection, immunodeficiency, and contigious site of infection. The pathogens most frequently recognised as responsible of splenic abscesses have been aerobic microbes, in particular Streptococci and Escherichia coli [15,16], followed by M. Tuberculosis, Salmonella typhi and Bartonella henselae [17–19]. Some studies also report that gram-negative K. pneumonia was one of the most frequently involved microbial pathogens [20]. If the lesions were the result of an intrasplenic hemorrhage, the causes could be either traumatic or spontaneous. The patient denied any kind of major traumatic event in his life even in the past; he was in therapy with anticoagulants (Clopidogrel) because of the previous ischemic ictus; the combination of the two factors could cause the bleeding phenomena. If the collections were infected as suggested by the results of the bacterial culture and the spreading was hematogenous, we still do not know the origin. In literature, the positivity to E. Coli is related to urinary infection [21] or to complication of colonic cancer [22]. In our case no contiguous nor distant sites of infection were detected. The fact that the diagnosis was not established preoperatively posed an issue in respect to the most suitable treatment. Since the treatment of a splenic abscess and of a hematoma at risk of rupture or infection is in both cases splenectomy, we were reassured about the validity of the surgical treatment option. There is no gold standard treatment for splenic abscess. Traditionally, treatment includes high dosage antibiotic with or without splenectomy [13]. Percutaneous aspiration or PCD may be a less invasive option in patients who are at high risk for surgery, or a temporary solution used as a bridge to surgery, avoiding the risk of a fulminant and potentially life-threatening infection [7]. PCD is a successful approach when the abscess collection is unilocular or bilocular, with a complete and thick wall and no internal septations, and when the content is liquid enough to be drained. If there are more than two collections, surgical treatment is to be preferred [22].

4. Conclusions

In conclusion, the best therapeutic approach for splenic abscess is still controversial. However, based on our case experience and current literature, percutaneous aspiration of splenic abscess can be used not only in particular cases, in all other cases splenectomy represents the best therapeutic choice.

Conflicts of interest

There is no conflict of interest to declare.
Funding

None.

Ethical approval

The paper is not a research study.

Consent

Written informed consent was obtained from the patient for publication of this case report.

Author contribution

Marco Casaccia, ideated the study and drafted the article. Simora Macina, acquisition of data, drafting the article. Rosario Fornarò, revising it critically for important intellectual content. Marco Frascio, substantial contributions to conception and design. Tommaso Testa, revising it critically for important intellectual content. Cesare Stabilini, drafting the article revising it critically for important intellectual content. Ezio Gianetta, final approval of the version to be submitted. All authors approved the final draft.

Guarantor

Dr. Simona Macina.

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