**SUPPLEMENTAL MATERIALS**

**Supplemental Table 1.** Summary of studies evaluating the epidemiology, radiologic, histologic, and clinical findings of patients with sclerosing mesenteritis.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Design | Epidemiology | Radiologic Findings | Histologic Findings | Clinical Symptoms | Laboratory Findings | Natural History | Treatment |
| **Radiology** |  |  |  |  |  |  |  |  |
| Daskalogiann-aki 2000 | Design: Prospective cohort. Review of 7620 consecutive CT scansDefinition: A solitary, well-defined mass composed of inhomogeneous high attenuation fatty tissue at the root of the small bowel mesentery, engulfment of superior mesenteric vessels without vascular involvement, and no evidence of invasion of the adjacent small-bowel loops even if displaced n = 29 cases | Prevalence: 0.6%Age: 62 yearsMale: 34.7% | Soft tissue nodules: 79.5%Fat halo sign: 85.7%Pseudocapsule: 59% | Not reported | 92% with symptoms attributable to another disease process | Not reported | Radiologic: No progression or remissionFollow-up: 21 patients with follow-up scan between 5 months to 3 years | 2 of 3 treated with prednisone improved (no radiologic improvement) |
|  |  |  |  |  |
|  |  |  |  |  |  |
| Coulier 2011 | Design: Prospective cohort. Review of 613 consecutive CT scans.Definition: At least 3 of criteria 1) well-defined mesenteric mass causing mass effect on neighboring structures 2) constituted by high attenuation fat 3) containing soft tissue nodules 4) surrounded by a hypoattenuating fatty halo ("fat halo sign") and 5) pseudocapsulen = 48 cases | Prevalence: 7.8%Male: 59.1% | Mesenteric mass: 100%High attenuating fat: 100%Soft tissue nodules: 100%Fat halo sign: 88.5%Pseudocapsule: 44% | Not reported | Not reported | Not reported | Radiologic: 8% CT progression, 84% CT stable, 8% CT regressionFollow-up: 25 patients with follow-up scan at mean of 36 months | Not reported |
|  |  |  |  |  |
|  |  |  |  |  |  |  |
| Canyigit 2011 | Design: Retrospective cohort. Review of 2100 consecutive CT scans; each scan reviewed to identify casesDefinition: A well-defined mesenteric mass of hyperattenuating fat, encircling, but not displacing mesenteric vessels, with soft tissue nodules surrounded with fat halo sign and pseudocapsule | Prevalence: 2.4%Age: 56.2 yearsMale: 68.6% | Pseudocapsule: 72.6%Fat halo sign: 23.5% | Not reported | Abdominal pain: 37.2%Flank pain: 25.5%Back pain: 3.9%Fullness: 3.9%Constipation: 1.9% | CRP elevation: 50% | Not reported | None received treatment |
|  |  |  |  |  |
|  |  |  |  |  |
|  | n = 51 cases |  |  |  |  |  |  |
| Gogebakan 2013 | Design: Retrospective case-control. Cases identified by keyword search of CT database and matched by year of CT, CT protocol, age, gender, and abdominal diameter.Definition: Coulier CT criterian = 77 casesn = 152 controls | Prevalence: 0.58%Age: 65.5 yearsMale: 76.6% | Not reported | Not reported | Not reported | CRP higher among controls than cases | Not reported | Not reported |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Putte-Katier 2014 | Design: Retrospective case-control. Cases identified by reviewing consecutive CT scans and matched by age and sex.Definition: A solitary well-defined mesenteric mass of inhomogeneous hyperattenuating fatty tissue with engulfment of superior mesenteric vessels without vascular involvement, displacing bowel loops with no invasion, and lymph nodes < 10mm.n = 94 casesn = 188 cases | Prevalence: 2.5%Age: 66.6 yearsMale: 66% | Soft tissue nodules: 97.9%Fat halo sign: 93.6%Pseudocapsule: 56.4% | Not reported | Abdominal pain: 31.9%Flank pain: 21.3%Weight loss: 21.3%Nausea/vomiting: 11.7%Fevers/rigors: 6.4% | CRP elevation: 51.5%ESR elevation: 41.7% | Clinical: 82.4% spontanteous resolution of painRadiologic: 27% CT remission, 70.3% CT stable, 2.7% CT progressionFollow-up: Records reviewed for all patients for 5 years after initial scan | 1 received prednisone without improvement |
|  |  |
|  |  |  |
|  |  |  |  |  |  |  |
| Badet 2015 | Design: Retrospective cohort. Review of 158 cases idenitified by keyword search in CT database.Definition: A mesenteric mass composed of hyperattenuating fat with subcentimeter soft-tissue nodulesn = 158 cases | Age: 63 yearsMale: 76.6% | Fat halo sign: 56%Pseudocapsule: 59% | Not reported | Abdominal pain: 39%Diarrhea: 2% | Not reported | Not reported | Not reported |
|  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Protin-Catteau 2016 | Design: Retrospective case-control. Cases identified by reviewing consecutive CT scan and matched by age and gender.Definition: Coulier CT criterian = 96 casesn = 192 controls | Prevalence: 3.1%Age: 65.4 yearsMale: 66.7% | Mass effect: 68.8%Hyperattenuation: 91.7%Soft tissue nodules: 10)%Fat halo sign: 60.4%Pseudocapsule: 58.3% | Not reported | Abdominal pain: 2.1% | Not reported | Radiologic: 7.1% CT remission, 71.5% CT stable, 7.1% CT progressionFollow-up: 56 patients underwent repeat CT scan at mean 40 months | Not reported |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |  |  |
| Pathology |  |  |  |  |  |  |  |  |
| Emory 1997 | Design: Retrospective cohortDefinition: Review of all cases with diagnosis of mesenteric lipodystrophy, mesenteric panniculitis, or sclerosing mesenteritisn = 84 cases | Age: 60.1 yearsMale: 66.7% | Not reported | Mesenteric lipodystrophy: 4.8%Mesenteric panniculitis: 20.4%Sclerosing mesenteritis: 71.4% | Abdominal pain: 34.6%Bowel obstruction: 30.8%Incidental abdominal mass: 16.7% | Not reported | Clinical: 3.6% died of post-surgical complications. No other disease-related deaths and no reports of progression, recurrence, or additional surgery.Follow-up: 42 patients | 42.9% underwent surgical excision of mass, 22.6% also required small bowel resection. None underwent medical treatment |
|  |  |  |  |
|  |  |  |  |  |
| Clinical |  |  |  |  |  |  |  |  |
| Kipfer 1974 | Design: Retrospective cohort.Definition: Histologic evidence of mesenteric fat necrosis or inflammationn = 53 | Age: 60 yearsMale: 64% | Not reported | Not reported | Asymptomatic: 43%Abdominal pain: 38%Weight loss: 21%Bloating: 19%Nausea: 15%Anorexia: 9% | ESR elevation: 60% | Clinical: No deaths attributable to sclerosing mesenteritisFollow-up: 5-years in 98% of patients | 4 patients underwent surgical resection; symptoms improved in 1 patients3 patients underwent radiation; symptoms improved in 1 |
|  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |  |
| Akram 2007 | Design: Retrospective and prospective cohort. Definition: Cases retrospectively identified by pathology and diagnosis codes and prospectively identified by clinicians referred to gastroenterology clinicn = 92 | Age: 65 yearsMale: 70% | Single soft tissu mesenteric mass: 61%Fat hyperattenuation: 34% | Mesenteric lipodystrophy: 22%Mesenteric panniculitis: 25%Sclerosing mesenteritis: 53% | Abdominal pain: 70%Bloating: 26%Diarrhea: 25%Weight loss: 23%Incidental: 10% | ESR elevation: 14% | Small bowel obstruction: 24%Chylous ascites: 14%Superior mesenteric vein thrombosis: 3%Colonic variceal bleed: 1%Death attributable to sclerosing mesenteritis: 3% | 10% responded to surgery alone37.5% responded to prednisone + tamoxifen3.1% responded to prednisone + azathioprine + colchicine |
|  |  |
|  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |  |
| Sharma 2017 | Design: Systematic review of case reportsDefinition: English language case reports of mesenteric lipodystrophy, mesenteric panniculitis, retractile mesenteritis, or sclerosing mesenteritis that included a detailed summary of the patient's clinical coursen = 192 cases | Age: 61 yearsMale: 69.3% | Not reported | Not reported | Abdominal pain: 78.1%Fever: 26%Diarrhea: 19.3%Vomiting: 18.2%Anorexia: 13.5%Constipation: 10.9%Bloating: 9.4%Incidental: 1.6% | CRP elevation: 86.5%ESR elevation: 88.4%IgG4 elevation: 30.7% | Bowel obstruction/ischemia/ileus: 23.8%Obstructive uropathy: 23.8%Venous thromboembolism: 10%Death attributable to sclerosing mesenteritis: 6.3% | Not reported |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |