Incidental findings: A retrospective analysis of management
Authors and disclosures

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- **Disclosures:**
  - None
Purpose

- Determine if appropriate follow-up is being recommended for incidental findings (IFs) detected on CT scans of the abdomen and pelvis
IFs are discovered on imaging studies performed for unrelated indications

Aggressive management of IFs can lead to patient anxiety, increased radiation exposure, increased cost, and unnecessary procedures with potentially injurious outcomes
The American College of Radiology (ACR) has published several White Papers through the Incidental Findings Committees. Committees were composed of experts in various organ systems. Consensus agreements on management of IFs were reached based on available literature and personal experience.
Methods and materials

- Retrospective chart review: 561 CT scan reports of the abdomen and pelvis performed at a tertiary medical center
- Scans with IFs were studied to determine if recommendations provided by the reading radiologist followed guidance provided by the ACR Incidental Findings Committees
Methods and Materials

- Organs included: kidneys, pancreas, spleen, adrenal glands, adnexa, gallbladder, biliary tract, vascular and nodal
- IFs excluded: hepatic cysts and masses
  - Excluded due to difficulty in risk stratification and limited characterization with single phase CT
- If multiple IFs were found in one report, each IF was included due to separate and distinct recommendations
- Images were evaluated for clarification of findings as needed
- Institutional review board approval was obtained with waiver of consent
317 IFs identified: 83.6% ED, 13.9% inpatient, and 2.5% outpatient
Appropriate management for 90.5%
Majority of remaining 9.5% included lack of recommended follow up for aneurysms, adrenal nodules, and adnexal cysts in postmenopausal women
Proper follow-up not advised for a complex renal cyst and a renal mass
Unnecessary follow-up studies recommended for 2 adrenal nodules, 2 premenopausal cysts, and 1 pancreatic cyst
## Results

Table 1. IFs identified along with appropriateness of management.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Total</th>
<th>Appropriately managed</th>
<th>Inappropriately managed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renal cysts</td>
<td>147, 46.4</td>
<td>146, 99.3</td>
<td>1, 0.7</td>
</tr>
<tr>
<td>Cholecystic</td>
<td>42, 13.2</td>
<td>42, 100</td>
<td>0, 0</td>
</tr>
<tr>
<td>Adnexal cysts</td>
<td>33, 10.4</td>
<td>26, 78.8</td>
<td>7, 21.2</td>
</tr>
<tr>
<td>Adrenal nodules</td>
<td>24, 7.6</td>
<td>18, 75</td>
<td>6, 25</td>
</tr>
<tr>
<td>Aneurysms</td>
<td>19, 6</td>
<td>5, 26.3</td>
<td>14, 73.7</td>
</tr>
<tr>
<td>Biliary</td>
<td>17, 5.4</td>
<td>17, 100</td>
<td>0, 0</td>
</tr>
<tr>
<td>Nodal</td>
<td>16, 5</td>
<td>16, 100</td>
<td>0, 0</td>
</tr>
<tr>
<td>Pancreatic cysts</td>
<td>5, 1.6</td>
<td>4, 80</td>
<td>1, 20</td>
</tr>
<tr>
<td>Splenic cysts</td>
<td>5, 1.6</td>
<td>5, 100</td>
<td>0, 0</td>
</tr>
<tr>
<td>Venous findings</td>
<td>4, 1.3</td>
<td>4, 100</td>
<td>0, 0</td>
</tr>
<tr>
<td>Renal masses</td>
<td>3, 0.9</td>
<td>2, 66.7</td>
<td>1, 33.3</td>
</tr>
<tr>
<td>Pancreatic masses</td>
<td>1, 0.3</td>
<td>1, 100</td>
<td>0, 0</td>
</tr>
<tr>
<td>Splenic masses</td>
<td>1, 0.3</td>
<td>1, 100</td>
<td>0, 0</td>
</tr>
</tbody>
</table>

Reported as number, percentage
Conclusion

- Majority of inappropriate management included lack of recommended follow up for aneurysms, adrenal nodules, and adnexal cysts in postmenopausal women.
- Increased awareness of management guidelines available for IFs may improve long-term patient outcomes and minimize unnecessary follow up.


