**340P**

Proteinuria in patients treated with ramicrubim increases the risk of renal dysfunction

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**Background:** It is unknown whether proteinuria caused by ramicrubim (RAM) induces renal dysfunction. Thus, this study assessed the relationship between proteinuria and other factors with RAM therapy, and compared estimated glomerular filtration rate (eGFR) with or without proteinuria in long-term treatment.

**Methods:** Medical records were retrospectively reviewed for 156 patients treated with chemotherapy that included RAM between April 1, 2015 and May 31, 2019 at Kure Medical Center. Forty-eight patients with a performance status of 3 or 4, or not measured for proteinuria among those treated with RAM, or had detected proteinuria before first commencing RAM administration were excluded. Proteinuria and eGFR were measured before treatment with RAM, and compared to minimum eGFR with or without proteinuria after treatment with RAM. The proteinuria group was defined as proteinuria detected at more than 1+ at least once.

**Results:** Overall, a total of 108 patients were included in this analysis. Thirty-nine patients were classified into a proteinuria group and the remaining 69 patients were classified into the non-proteinuria group. Age, sex, and eGFR before treatment with RAM did not significantly differ between the proteinuria group and non-proteinuria group. There were 2 patients with acute kidney injury in the proteinuria group and none in the non-proteinuria group. The incidence of grade 3 or 4 chronic kidney disease (CKD) was observed in 8 patients (20.5%) in the proteinuria group, but in only 3 patients (4.5%) in the non-proteinuria group (p=0.05). Patients treated over 200 days with RAM had a significant incidence of proteinuria, and in the proteinuria group, the appearance of proteinuria within 28 days from first administration decreased eGFR more than after 28 days.

**Conclusions:** Proteinuria caused by RAM might be decreased in eGFR, particularly in cases that immediately detected. Renal dysfunction can affect subsequent chemotherapy, and as such, it is important to regularly check proteinuria during treatment with RAM. It is necessary to take particular care for cases in which proteinuria is detected and renal function has already declined.

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**350P**

Rheumatologic immune related adverse events (irAEs) secondary to immune checkpoint inhibitor (ICI) therapy: A Western Australia experience

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**Background:** Immune checkpoint inhibitors (ICI) have demonstrated improvement in overall survival across a range of tumor types. However, ICI therapy is associated with severe immune related adverse events (irAEs) including inflammatory arthritis. Here, we report our experience for rheumatological irAEs in patients with and without pre-existing auto-immune disease (AID).

**Methods:** Data was collected retrospectively for 15 patients identified as having rheumatological irAEs secondary to ICI therapy in our center between 2015-2019. We identified three patients with pre-existing AID.

**Results:** The mean age of the cohort was 66 years. The commonest tumor types were melanoma (73%) and NSCLC (27%). In the group without AID, (n=12), 7 patients developed inflammatory arthritis (IA). Two patients with PMR like syndrome depicted typical clinical signs, laboratory and radiographic by raised inflammatory markers. The SICCA syndrome patient had biopsy proven lichenoid drug eruption and feature of xerostomia. One patient had synovial aspiration proved OA exacerbation treated with intra-articular corticosteroid injection, ceasing ICI. One patient developed grade 3 immune mediated myositis 12 days after commencing nivolumab. Muscle biopsy showed active inflammatory myopathy and lymphocytic vasculitis. Median time to any rheumatologic irAEs was 9.8 weeks. Treatment was withheld temporarily in patient and it was stopped permanently in 2 patients. All patients had high doses of glucocorticoids that led to significant, moderate and minimal improvement in 2, 8 and 2 patients, respectively. Additionally, 3 patients needed other disease modifying anti-rheumatoid drugs (DMARDs). In cohort with pre-existing AID (n=3), only patient with rheumatoid arthritis (RA), had flare of RA after 7 weeks of initiating ICI therapy. ICI therapy was withheld and had resolution of symptoms with steroids.

**Conclusions:** Rheumatic irAEs are serious and less understood adverse events secondary to ICI therapy requiring steroids and additional immunosuppressive therapy. Future studies should aim at defining the type of rheumatologic irAEs experienced in trials patients and response to steroids +/- DMARDs. A multi-disciplinary approach is recommended.

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**351P**

Valvular heart diseases in patients treated for breast cancer

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**Background:** Aortic stenosis is the most common valvular complication of mediastinal radiotherapy. In 2016 was shown that not only radiotherapy but chemotherapy with anthracyclines alone may provoke the development of valvular heart diseases (VHD). But there are still not clear time frames of VHD development.

**Methods:** We present a single-center retrospective analysis of a cohort with breast cancer history who were treated in cardiology departments. Total 91 patients were included in this study. ECHO data and time till first symptoms and surgical treatment were assessed in all patients.

**Results:** Different VHD were revealed in 48.35% (n=44) of patients. Among them 54.5% (n=24) had aortic stenosis, 34.1% (n=15) — mitral regurgitation, 4.5% (n=2) — mitral stenosis with regurgitation, 2.3% (n=1) — isolated aortic regurgitation and the same number of isolated mitral stenosis. During 15 months 25 patients were undergoing surgical treatment. In 2 of them VHD was first diagnosed before cancer treatment, so they weren’t included in the subsequent analysis. The oncological age in operated patients was 60 (42; 68) years. The time till first signs of VHD was 8 [4; 16.5] years. In all patients dyspnea was presented, 39% of patients had angina and only in 21.7% had presyncopes and syncopes. The median time from oncological age till surgery was 11 [7; 22] years. We also revealed correlation between oncological age and time till first VHD signs and surgical treatment (r = 0.76 and r = 0.71 respectively).

**Conclusions:** Given the widespread prevalence of degenerative aortic stenosis in older age patients, it is advisable to assess valves condition not only before radiation and chemotherapy but also recommend more frequent echocardiographic monitoring after, as well as use of new visualization techniques, such as CT (calcium score) and 123I-NaF PET-CT (as marker of calcification).

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