Disclosure: Matthias Preusser: Employment: Kongresspräsident der Jahrestagung 2022, Honoraria: Bayer, Bristol-Myers Squibb, Novartis, Gerson Lehrman Group (GLG), CMC Contrast, GlaxoSmithKline, Mundipharma, Roche, BMJ Journals, MedMedia, Astra Zeneca, AbbVie, Lilly, Medahead, Daiichi Sankyo, Sanofi, Merck Sharp & Dome, Tocagen, Adastra und Gan & Lee Pharmaceuticals; Anna Sophie Berghoff: Honoraria: Roche, Bristol-Meyers Squibb, Merck und Daiichi Sankyo, Financing of Scientific Research: Daiichi Sankyo und Roche, Other: Reisekostenunterstützung von Roche, Amgen and AbbVie.

P733

Transfusionen von Erythrozytenkonzentraten reduzieren die Ansprechrate von Patienten mit soliden Tumoren auf eine Immuntherapie

Hattenhauer/R. Mispelbaum S.T.[1], Heine A.[1], Brossart P.[1]

[1]University Hospital Bonn, Medical Clinic III for Oncology, Hematology, Immune-Oncology and Rheumatology, Bonn, Deutschland

The use of checkpoint inhibitors (CPIs) in anti-tumor therapy is rapidly increasing. Therefore, it is important to assess the influence of concomitant drugs on therapy response. Cancer patients oftenly develop anemia leading to an increased transfusion need. A reported side effect of allogenic red blood cell (RBC) transfusion is a transfusion-related immunomodulation (TRIM). The stored RBC concentrates are suspected to trigger a depression of cytotoxic T-lymphocytes, monocytes and interleukin 2 production, as well as a stimulation of Tregs. This immunosuppressive effect of RBC transfusions might also negatively influence the response to immunotherapeutic treatment approaches.
We conducted a retrolective clinical study of patients with different solid tumors treated with CPI (atezolizumab, pembrolizumab, nivolumab and/or ipilimumab) to examine how RBC transfusions impact response rates to CPI. The number of RBC concentrates received within 30 days before and 60 days after the start of CPI were collected. We investigated as outcome of interest the initial therapy response at first staging as well as the number of immune related adverse events (irAEs) and infections.
We observed a statistically significant reduction in the response rate to CPI in concomitant transfused patients. 15 of 55 included patients (27.3 %) received RBC concentrates within the first 60 days of CPI. The response rates were 77.5 % in the non-transfused (n=40) versus 46.7 % in the transfused patient group (n=15) and reached statistical significance (p=0.047). After adjusting for the confounding factor "line of therapy" the association between therapy response and transfused RBC concentrates stayed statistically significant (p=0.026). Treatment response was not worsened by transfusions received within 30 days before CPI (p=0.705). Likewise, we could not detect any significant influence of RBC transfusion on irAE rate (p=0.149) nor on infection rate (p=0.135).
In conclusion, the administration of RBC transfusions during, but not before initiation of CPI treatment negatively influences the response rates to CPI. This effect is most likely mediated by immunosuppression exerted by RBC concentrates. The results of our study do not justify the omission of a necessary transfusion. However, our findings suggest that a restrictive use of RBC transfusion in patients undergoing CPI may improve therapy response rate.

Disclosure: Annkristin Heine: Advisory Role: Roche, Astra Zeneca, BMS, MSD, Gilead, Janssen-Cilag; Peter Brossart: Advisory Role: BMS, MSD, Amgen, AstraZeneca, Honoraria: BMS, MSD, Financing of Scientific Research: BMS.

Posterdiskussion

Kopf-Hals-Tumoren, Melanome, neuroendokrine Tumoren, Sarkome, ZNS Tumoren I

P734

Jährliche Anzahl von Oropharynxkarzinomen und die Entwicklung der HPV-Test Prävalenz in Nordrhein Westphalen - eine Krebsregisteranalyse von 2008-2018

Teichler V.[1], Grünwald V.[2], Stang A.[2]

[1]Universität Duisburg-Essen, Essen, Deutschland, [2]Universitätsklinikum Essen, Essen, Deutschland

Annual number of oropharyngeal carcinoma cases and the development of HPV-testing prevalence in North Rhine-Westphalia-A Cancer Registry Analysis from 2008-2018

Teichler V[1], Grünwald V[2,3], Stang A[4]
1–University of Duisburg-Essen, Germany
2–Department of Urology, University Hospital Essen, Essen, Germany
3–Department of Medical Oncology, West German cancer center, University Hospital Essen, Essen, Germany
4–Cancer Registry of North Rhine-Westphalia, Bochum, Germany
Introduction: Oropharyngeal cancer (OPC) is commonly caused by alcohol and tobacco abuse or by an oropharyngeal HPV infection which is associated with a better overall survival.
A growing incidence of OPC with a decrease in other risk factors suggests a rising proportion of HPV-associated oropharyngeal carcinomas but larger scaled analyses are still required. Therefore we analyzed the number of OPC-cases and the test-rate for HPV in North-Rhine Westphalia.
Material and Methods: All patients diagnosed with oropharyngeal cancer (ICD-10: C01; C02.4; C05.1; C05.2; C09.0-9; C10.0-9) in a timespan from 2008-2018 were included in the study. In this retrospective study we analyzed pseudonymised individual pathology and incidence reports collected by the North-Rhine Westphalia cancer registry to extract our data which was then assessed via SPSS.
Results: A total of 10.686 cases of oropharyngeal cancer were reported averaging 972 annual cases remaining at a rather constant level over the timespan.
1876 (17,55%) of all patients were tested for HPV. In 2008 the test rate was 2,3% (n=20) increasing steadily to 49,5% (n=494) in 2018. HPV was detected in 60% (n=1126) of tested cases without an observable increase in the ratio of HPV-associated OPC.
The majority (M:71,9%;n=7684/W:28,1%n=3002) of all cases were men which is comparable to the distribution for HPV-associated OPC (M:70,2%;n=791/W:29,8%;n=335).
The mean of the age at initial diagnosis was 63,05 (n=10.686; HPV+Ø=62,5; HPV-Ø=62,65).
Conclusion: Due to the relatively constant fraction of HPV-positive OPC in the tested group we can not conclude that the steady or lightly increasing level of new OPC diagnosis is solely due to increasing numbers of HPV-associated OPC. Age and Gender distribution do not seem to differ in the HPV-associated group in comparison to the entire patient group.
Higher numbers of testing for HPV and reporting are crucial for an exact evaluation of the epidemiology of HPV associated oropharyngeal cancer.

Disclosure: No conflict of interest disclosed.

P735

Immuntherapie eines Mikrosatelliten-instabilen metastasierten Talgdrüsenkarzinoms der Glandula submandibularis mit Pembrolizumab

Pogorzelski M.[1], Fendler W.[2], Berliner C.[2], Hussain T.[3], Lang S.[3], Ting S.[4], Schmid K.W.[4], Schildhaus H.-U.[4], Gauler T.[5], Stuschke M.[5], Laue K.[1], Herrmann K.[2], Grünwald V.[1,6,7], Schuler M.[1,7], Kasper-Virchow S.[1,7]

[1]Innere Klinik (Tumorforschung), Westdeutsches Tumorzentrum, Universitätsklinikum Essen, Essen, Deutschland, [2]Klinik für Nuklearmedizin, Westdeutsches Tumorzentrum, Universitätsklinikum Essen, Essen, Deutschland, [3]Klinik für Hals-Nasen-Ohren-Heilkunde, Kopf- und Hals-Chirurgie, Westdeutsches Tumorzentrum, Universitätsklinikum Essen, Essen, Deutschland, [4]Institut für Pathologie, Westdeutsches Tumorzentrum, Universitätsklinikum Essen, Essen, Deutschland, [5]Klinik für Strahlentherapie, Westdeutsches Tumorzentrum, Universitätsklinikum Essen, Essen, Deutschland, [6]Klinik für Urologie, Westdeutsches Tumorzentrum, Universitätsklinikum Essen, Essen, Deutschland, [7]Deutsches Konsortium für Translationale Krebsforschung (DKTK), Partnerstandort Universitätsklinikum Essen, Essen, Deutschland

Introduction: Sebaceous carcinoma is an uncommon malignant neoplasm with no approved systemic therapy for the recurrent or metastatic setting, mostly arising in the periocular area. Very rarely, sebaceous carcinoma occur in the salivary gland. Here, we report the case of a 40 year old woman with metastatic sebaceous carcinoma of the submandibular gland and a history of immune thrombocytopenia (ITP) treated with checkpoint inhibitor (CPI) pembrolizumab (P).
Methods: Diagnoses of sebaceous carcinoma was histologically confirmed. Metastatic disease was staged by ^{18}F-FDG PET. Molecular pathological characteristics were analyzed by immunohistochemistry (IHC), including MMR proteins, ERBB2 and PD-L1, a next generation sequencing (NGS) panel covering 38 genes and expression analysis for fibroblast activation protein (FAP) and prostate specific membrane antigen (PSMA) by ^{68}Ga-FAPI PET and^{68}Ga-PSMA PET, respectively. Peripheral immune cells were monitored using FACS with an antibody panel including CD4, CD8 and CD56.