Session 3: Anti-angiogenic agents in solid malignancies (Roche)

OCPS 15: Angiogenesis and angiogenic inhibitors in non-small cell lung cancer

Zineb Benbrahim, Nawfel Mellas[1]

Departmentof Medical Oncology, Oujda, [1]Department of Medical Oncology, Fez, Morocco

Non-small cell lung cancer is the first cause of cancer mortality in the world. Despite therapeutic improvements in the last decade, the survival rate has barely changed. Recent advances in the understanding of the signal pathways suggest an essential role of angiogenesis in the pathogenesis of NSCLC. Bevacizumab, a monoclonal antibody against circulating vascular endothelial growth factor (VEGF), is the first approved antiangiogenic drug treating NSCLC. Many other anti-angiogenic agents are under development, including VEGF Trap and tyrosine kinase inhibitors with encouraging results, particularly triple angiokinase inhibitors, which inhibit VEGF, platelet derived growth factor (PDGF) and fibroblast derived growth factor FGF. These agents may improve the therapeutic outcomes for patients with NSCLC. Nevertheles, there is a need to identify appropriate biomarkers to select patients who are benefiting from anti-angiogenesis therapy.

OCPS 16: Targeting angiogenesis in gastro-intestinal non colorectal cancers

Afqir Said

Department of Medical Oncology, Mohammed VI Inuversity Hospital, Oujda, Morocco

Angiogenesis is a key issue in the carcinogenesis progression. The development of anti-angiogenic targeted therapies has made significant progress over the last decade. Targeting angiogenesis is considered as a part of the treatment of metastatic colorectal cancer. Less data is available for the other gastrointestinal cancers. The objectif of this article is to provide a review of the angiogenesis targeting drugs evaluated in gastrointestinal non colorectal cancers. The review is focused on the following five common gastrointestinal cancers: gastric, pancreatic, neuroendocrine cancers, biliary cancers, and hepatocellular carcinoma.

OCPS 17: Targeting angiogenesis in soft tissue sarcoma

Arifi Samia

Department of Medical Oncology, Hassan II University Hospital, Fez, Morocco

Sarcomas are uncommon malignancies which gather more than 80 different subtypes in the most recent WHO classification. Surgery remains the mainstay for the treatment of localized disease; however, effective treatment of advanced soft tissue sarcoma remains a challenge. Advances in understanding the molecular biology and carcinogenesis of sarcoma have allowed for rapid development of new targeted therapies. In this review we will provide current knowledge on antiangiogenic therapies in non-

GIST soft tissue sarcomas. The contribution of angiogenesis to sarcoma development has been documented in preclinical models, and in the clinic. Angiogenesis plays a central role in the growth and dissemination of soft tissue sarcoma and correlates with higher-grade STS and a poorer outcome. Many angiogenesis inhibitors have shown activity in STS and pazopanib an antiangiogenic agent is now available in clinical routine. In this manuscript, we will present the results of preclinical research and clinical trials that have evaluated angiogenesis inhibitors in non GIST soft tissue sarcomas.

OCPS 18: Angiogenesis and anti-angiogenic therapies in epithelial ovarian cancer

Halima Abahssain, Sakina Sekkate[1], Sihamlkouyaali, Patricia Pautier[1], Hind M'Rabti, Hassan Errihani

Department of Medical Oncology, National Institute of Oncology, Rabat, Morocco, [1]Department of Medical Oncology, Gustave Roussy Institute, Paris, France

Ovarian cancer has a poor prognosis even after a complete resection and a platinum adjuvant chemotherapy because of its high rate of relapses. Clinical research has shown the role of angiogenesis in the development and progression of ovarian carcinoma. Several factors are involved, specially the vascular endothelial growth factor (VEGF). Bevacizumab is an humanized anti-VEGF antibody that was approved by the European Medicines Agency in first line for the treatments of advanced epithelial ovarian cancer, fallopian tube cancer and primary peritoneal cancer. It has to be combined with carboplatin and paclitaxel followed by maintenance therapy with bevacizumab alone. Bevacizumab has also been approved by EMA for the treatment of platinum-sensitive ovarian cancer recurrence in combination with carboplatin and gemcitabine. This literature review aims to provide updates about angiogenesis in ovarian cancer, pro-and anti-angiogenic factors that regulate angiogenesis, and listed new anti-angiogenic therapies in different phases of clinical development that aim to improve patients survival with ovarian cancer.

Keys words: Angiogenesis, anti-angiogenic therapies, bevacizumab, ovarian cancer, vascular endothelial growth factor

OCPS 19: Targeting angiogenesis in thyroid cancer

Lkhoyaali Sihame, Layachi Mohamed

Department of Medical Oncology, National Institute of Oncology, Rabat, Morocco

Thyroid cancers are characterized by a good prognosis but 10–15% of patients progress and become refractory to current therapies. Systemic treatment based on chemotherapy in these situations has shown limited efficacy, with response rates not exceeding 25%. At progression, differentiated thyroid cancer is characterized by a high level of expression of vascular endothelial growth factor (VEGF). This high expression of VEGF is associated with an aggressive tumor behavior and a poor clinical outcome. We will review the recent advances in targeting angiogenesis in the treatment of recurrent thyroid carcinoma.

OCPS 20: Antiangiogenic agents in the treatment of HER2-negative metastatic breast cancer

Nabil Ismaili

Department of Medical Oncology, Mohammed VI University Hospital, Marrakech, Morocco

Angiogenesis is an important step in breast cancer (BC) growth and progression. Targeting angiogenesis was the most interesting developed strategy in the treatment of HER2-negative BC. Bevacizumab is a monoclonal humanized antibody targeting the vascular endothelial growth factor (VEGF) the most potent factor implicated in tumor angiogenesis. It was the most developed targeted agent in HER2-negative MBC and showed the most interesting results in combination with chemotherapy. Currently, bevacizumab was the only approved targeted therapy (in Europe only) in the first line treatment of HER2-negative metastatic BC in combination with weekly paclitaxel. The aim of the present speach was to review the role of anti-angiogenic agents (targeted agents only) in the treatment of HER2-negative metastatic BC.