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· 临床研究 ·

新型冠状病毒肺炎疫情形势下肿瘤专科医院头颈部恶性肿瘤 诊治体会：附 38 例报告

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摘 要

背景与目的: 2019 年 12 月开始出现的新型冠状病毒肺炎 (COVID-19) 正在全球呈流行态势。有研究发现, 肿瘤患者罹患 COVID-19 的风险较高, 且更易出现重症及病情恶化。头颈肿瘤作为肿瘤专科医院接诊的重要病种, 病例基数庞大, 疾病复杂, 部分肿瘤恶性程度极高, 往往进展迅速, 经不起拖延, 而开展头颈肿瘤诊疗活动需要进行口腔、喉及气道等部位的操作本身又可能增加 COVID-19 医患感染风险。因此, 本研究着重探讨 COVID-19 疫情形势下肿瘤专科医院头颈肿瘤的诊治和防控策略。

方法: 回顾性分析 2020 年 2 月 1 日—2020 年 2 月 22 日 在中国科学院大学附属肿瘤医院 (浙江省肿瘤医院) 头颈外科预约收治的 38 例头颈部恶性肿瘤患者的临床资料。本中心实行分时段预约就诊, 基于诊疗指南和临床实践合理分流患者, 严格把握住院指征。所有收住患者均需进行详细的流行病学调查、核酸检测和胸部 CT 扫描, 排除 COVID-19 后方可接受手术或化疗。诊疗期间严格执行疫情防控措施, 仔细观察诊疗经过, 关注体温监测和管理, 出院后跟踪随访患者恢复情况并通过互联网医院或其他网络途径实施医学指导和后续治疗。

结果: 头颈部恶性肿瘤 38 例患者中, 男 17 例, 女 21 例, 平均 49 岁; 其中甲状腺癌 21 例, 口腔恶性肿瘤 6 例, 唾液腺癌 3 例, 喉癌 2 例, 下咽癌 2 例, 颈段食管癌 1 例, 淋巴瘤 1 例, 鼻咽癌 1 例, 血管肉瘤 1 例。31 例接受手术治疗, 7 例接受化疗, 诊疗过程中 3 例出现发热, 其中 1 例为粒缺性发热, 1 例为肿瘤坏死感染发热, 1 例因切口感染而发热, 患者总体经过顺利, 恢复良好, 住院期间及出院后随访 2 周末发现患者和医务人员 COVID-19 感染。

结论: COVID-19 疫情形势下, 基于诊疗指南和临床实践, 合理分流、科学防控, 充分利用“互联网+医疗”的优势, 在积极投身抗击疫情同时, 保护肿瘤患者免受病毒感染, 并做好患者的心理支持, 将疫情对治疗的影响降到最低并保证治疗的延续性是头颈肿瘤临床诊疗工作的可行策略。

关键词

头颈部肿瘤; 2019 冠状病毒病; 传染病控制

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Treatment strategies for head and neck tumors in cancer-specialized hospital amid the novel coronavirus (COVID-19) pandemic: a report of 38 cases

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Abstract

Background and Aims: The novel coronavirus (COVID-19), discovered in December 2019, has now spread throughout the world. Studies have shown that patients with cancer have a higher risk of COVID-19 and are more likely to develop severe symptoms and progress to exacerbation. Head and neck tumors, as the major disease entities to be encountered in a cancer-specialized hospital, have a large number of cases of complex disorders, and some of them are highly malignant with rapid progress, for which the treatment cannot be delayed. Moreover, the operations involving the mouth, throat and airway are unavoidable during the diagnosis and treatment process of head and neck tumors, which may increase the risk of COVID-19 infection between doctors and patients. Therefore, this study was conducted to mainly investigate the appropriate diagnosis and treatment of head and neck tumors and prevention and control strategies of COVID-19 in a cancer-specialized hospital amid the COVID-19 pandemic.

Methods: The clinical data of 38 patients with head and neck malignant tumors admitted for therapy by scheduled appointment in Zhejiang Cancer Hospital from February 1th, 2020 to February 22rd, 2020 were retrospectively analyzed. In our center, the time-phased appointments were implemented, patients were appropriately diverted based on the diagnosis and treatment guidelines and clinical practice, and the hospitalization indications were rigorously adhered to. All admitted patients received surgery or chemotherapy on the premise of exclusion of COVID-19 by detailed epidemiological investigation, nucleic acid detection and chest CT scan. During hospitalization, the epidemic prevention and control measures were strictly implemented, the treatment process was carefully observed, and the temperature monitoring and management were paid particular attention. After discharge, the outcomes of patients were followed up and the patients received medical advice and post-discharge treatment through internet-based hospitals or other online channels.

Results: Among the 38 patients with head and neck tumors, 17 cases were males and 21 were females, with an average age of 49 years. There were 21 cases of thyroid cancer, 6 cases of oral malignancies, 3 cases of salivary gland cancer, 2 cases of laryngeal cancer, 2 cases of hypopharyngeal cancer, and 1 case each of cervical esophageal cancer, lymphoma, nasopharyngeal cancer and of angiosarcoma. COVID-19 was excluded in all 38 patients upon admission. Thirty-one patients underwent surgical treatment and the other 7 patients were subjected to chemotherapy. Fever occurred in 3 patients during the process of treatment, which included fever associated with agranulocytosis in 1 case, fever caused by tumor necrosis and infection in 1 case and fever caused by wound infection in 1 case. Patients generally had an uneventful treatment course and recovered well. No COVID-19 infection was found in patients and medical staff during hospitalization and at the end of 2 weeks after discharge from hospital.

Conclusion: In the situation of COVID-19 pandemic, rational distribution of patients as well as scientific prevention and control based on the diagnosis and treatment guidelines and clinical practice, making full use of the advantages of "internet + medical service", to protect cancer patients from virus while engage in the fight against the epidemic, providing psychological support to the patients, and minimizing the impact of the epidemic on treatment and ensuring the continuity of treatment are feasible strategies for the clinical treatment of head and neck tumors.

Key words Head and Neck Neoplasms; Coronavirus Disease 2019; Communicable Disease Control
CLC number: R739.9

2019年12月以来,湖北武汉出现了新型冠状病毒肺炎疫情,随着疫情的蔓延,我国其他地区及境外诸多国家也相继出现了类似病例^[1-3]。2020年2月12日,世界卫生组织将本次新型冠状病毒所引发的疾病命名为2019新型冠状病毒病(coronavirus disease 2019, COVID-19)^[4]。我国境内已经采取一系列强有力措施遏制了疫情上升趋势,但COVID-19在全球仍呈流行态势,预计疫情还将持续一段时间。截止2020年5月4日,全球累计COVID-19病例超过350万,死亡病例超过20万^[5];我国累计报告确诊病例82 881例,累计死亡病例4 633例^[6]。根据现有资料,本病具有强传染性,传染源主要是COVID-19患者,但近期文献^[7-8]表明,无症状感染者也可成为传染源,这给疫情防控带来了新挑战。有研究^[9]发现,肿瘤患者由于疾病本身及抗肿瘤治疗导致的免疫受损,罹患COVID-19的风险较高,且更易出现重症及病情恶化,因此呼吁COVID-19疫情期间需要更多关注肿瘤患者。头颈肿瘤作为肿瘤专科医院接诊的重要病种,病例基数庞大,疾病复杂,部分肿瘤恶性程度极高,往往进展迅速^[10-12],而开展头颈肿瘤诊疗活动需要进行口腔、喉及气道等部位的操作又可能增加医患感染风险^[13-14],因此肿瘤专科医院如何在疫情期间积极配合政府防控的同时合理处置头颈肿瘤患者是摆在当前的一个重要课题。笔者回顾性分析了疫情期间浙江省肿瘤医院整体抗疫部署下头颈外科收治的38例头颈部恶性肿瘤的临床资料,并总结其诊治经过,旨在提高COVID-19流行期间头颈肿瘤专科医生的应变能力。

1 资料与方法

1.1 一般资料

回顾性分析2020年2月1日—2020年2月22日在中国科学院大学附属肿瘤医院(浙江省肿瘤医院)头颈外科预约收治的38例头颈部恶性肿瘤的临床资料。本组男17例,女21例;年龄24~76岁,平均49岁。38例头颈部恶性肿瘤患者中,甲状腺癌21例,口腔恶性肿瘤6例,唾液腺癌3例,喉癌2例,下咽癌2例,颈段食管癌1例,淋巴瘤1例,

鼻咽癌1例,血管瘤1例。收治原因中26例为新确诊恶性肿瘤,10例为肿瘤复发、进展,2例为按计划化疗。籍贯来源地浙江省内患者33例,省外患者5例。来院就诊交通工具中31例患者及陪护系自驾,7例乘坐公共交通(动车)。所有患者的COVID-19筛查及后续治疗方案均按医院规定签署知情同意书,并上报医院伦理委员会同意。

1.2 COVID-19 流行病学调查

根据国家和浙江省防控新型冠状病毒感染的肺炎疫情工作部署,结合最新COVID-19发病特点及境内外各地疫情流行趋势,截至发稿,我院先后动态更新了6版《流行病学调查表》,主要包括:(1)是否有发热、乏力、干咳等症状;(2)是否有2周内武汉市、境外等地病例持续传播地区的旅行史或居住史;(3)是否有2周内与新型冠状病毒感染者(核酸检测阳性)接触史;(4)是否与聚集性发病或与新型冠状病毒感染者有流行病学关联;(5)是否有居家隔离14 d史;(6)来院交通工具等。所有患者均需门诊预约就诊,取消现场挂号,医院设置体温监测点,入院前对患者及陪护人员进行体温筛查和流行病学调查,并由患者和家属确认并签字。政府开放健康动态码后结合健康码进行数字化管理。

1.3 新型冠状病毒核酸筛查和胸部CT筛查^[15-16]

所有入院后需行手术或化疗的患者均在采取治疗前接受至少1次新型冠状病毒核酸筛查和胸部CT筛查,对于涉及口腔、喉及咽部手术的行两次不同时段新型冠状病毒核酸检测。新型冠状病毒核酸检测的样本为咽拭子,三级防护下专人进行采样和检测,检测场所为专设的P3实验室,检测试剂为上海之江生物科技股份有限公司生产的新型冠状病毒(2019-nCoV)核酸测定试剂盒(货号Z-RR-0479-02-25),采用逆转录反应及聚合酶链式反应(polymerase chain reaction, PCR)结合Tapman技术进行检测。伴有发热的患者在专用CT机房进行胸部CT筛查。

1.4 头颈肿瘤诊疗原则

根据既往头颈部恶性肿瘤诊疗指南和临床经验,结合近期COVID-19疫情形势下肿瘤诊疗建议^[17-23],原则上甲状腺癌(髓样癌或低分

化、未分化癌除外)延缓手术,其他类型头颈恶性肿瘤尽量减少各类有创操作,尤其涉及口腔、咽部、喉及气管等部位,根据多学科协作(multidisciplinary team, MDT)诊疗意见,能诱导化疗者先行诱导化疗,如行手术,做好围手术期医患防护。化疗患者积极给予营养支持、升白细胞治疗,给予康复新等含漱液漱口减少感染;手术患者加强口、咽及气道管理,积极给予营养支持,必要时及时抗炎治疗。严格住院期间体温管理,仔细排查体温升高原因,必要时再次新型冠状病毒核酸检查和胸部CT复查。诊疗期间做好和患者及家属的解释工作和心理支持,减少患者对头颈部恶性肿瘤本身的焦虑和对疫情的恐惧。

1.5 复诊和随访

患者及陪护家属出院后均建议在家休养,配合当地政府疫情防控。各医疗组均开通互联网医院免费在线复诊和咨询功能,定期开展微信视频连线咨询和网络线上咨询活动,方便患者出院后咨询和管理。采用电话形式随访患者及家属,每周1次,重点关注有无发热、咳嗽等呼吸道症状,以及肿瘤治疗后的康复状况。每天记录参与诊疗医务人员疫区接触史和体温、健康码等情况。

2 结果

2.1 COVID-19 排查结果

经详细的流行病学调查,38例患者入院时均无阳性流行病学特征。COVID-19核酸检测均无阳性病例。38例胸部CT筛查结果中,34例正常,2例为陈旧性肺结核改变,1例伴有尘肺,1例为肺气肿,均无病毒性肺炎改变患者。

2.2 诊疗经过

38例患者中有7例患者接受了化疗,其中6例为术前新辅助化疗(诱导化疗),1例为肿瘤晚期姑息性化疗。化疗方案中采用多西他赛加顺铂化疗4例,采用紫杉醇加卡铂化疗2例,异环磷酰胺加表柔比星1例,整个化疗过程中,有2例出现发热,1例为粒缺性发热,1例为肿瘤坏死感染发热,均排除新型冠状病毒感染。

31例接受手术的患者中,21例为甲状腺癌,其中13例伴有颈淋巴结转移,5例为肿瘤复发,1例为甲状腺癌合并甲亢(浙江省启动一级响应前就已开始碘剂准备),21例均施行根治性手术;另有10例为鼻咽、口咽、颈段食管、唾液腺、口

腔、喉等部位恶性肿瘤(7例为局部晚期患者),其中7例行根治性手术,3例行挽救性手术,手术过程均顺利,术后恢复良好,住院期间未出现COVID-19感染。

2.3 随访结果

38例患者均接受电话随访至出院2周,1例因切口感染而发热再次住院治疗,入院后排除COVID-19感染,其余患者均无发热、咳嗽等症状,患者恢复良好。38例患者住院诊疗期间及出院后2周,亦未发现医护人员感染COVID-19。

3 讨论

肿瘤专科医院相对来说不是COVID-19的高发区域,但肿瘤患者普遍免疫力低、营养状态差,是新发重大传染病的高危人群,而放化疗、手术等引起全身免疫抑制状态,使之更易感染COVID-19^[14,24]。全国范围COVID-19监测数据也表明^[9],与非恶性肿瘤患者相比,恶性肿瘤患者发生重症COVID-19风险更高,且恶化更快。头颈肿瘤由于涉及口腔、喉及气道等部位的操作,疫情传播风险较大,防控任务艰巨,但部分头颈肿瘤(尤其鳞癌)恶性程度较高,病患经不起拖延,因此,在当前形势下,需要在积极疫情防控的同时寻求科学有效的管理措施及合理的应对策略,使疫情对头颈肿瘤患者的影响降至最低^[17,25]。

3.1 COVID-19 疫情期间头颈肿瘤诊疗的决策应变

头颈部恶性肿瘤往往病种繁多,包括原发于鼻腔、鼻窦及鼻咽、口咽、喉咽、颈段食管、甲状腺、唾液腺、口腔、喉、耳及颈部软组织的各类肿瘤^[10]。除分化型甲状腺癌外,多数恶性程度较高,确诊时有不少病患已处于中晚期,肿瘤容易进展^[11-12],患者及家属的求治愿望较急迫。根据头颈部恶性肿瘤诊疗规范及近期疫情形势下肿瘤诊疗建议^[17-23],对于病情稳定或恶性程度不高的肿瘤,应合理分流,可适当延缓手术,或改为化疗等非有创治疗措施作为过渡。据此本中心在疫情期间对多数分化型甲状腺癌以及病情稳定的其他头颈部恶性肿瘤,均建议患者暂缓手术,同时做好解释工作以消除患者的恐癌心理。对于病情复杂患者或中晚期头颈部恶性肿瘤,笔者推荐多学科协作(MDT)以制定最佳方案,鉴于疫情期间不便于人员聚集,可以采取电话会诊的形式。对于确需收治的头颈部恶性肿瘤,我们建议严格

排除COVID-19后予以及时救治。对于COVID-19感染合并肿瘤的患者,有研究^[26]报道,这类患者术后病死率极高,因此,疫情期间此类头颈部恶性肿瘤患者不建议手术,而应转定点医院隔离治疗。诊疗过程中,应强调对患者及家属给予心理支持,减少患者对头颈部恶性肿瘤本身的焦虑和对疫情的恐惧。此外,根据中国抗癌协会建议^[19],疫情期间对于接受化疗和手术的患者,应给予积极的营养支持以促进快速康复和预防病毒感染。

3.2 头颈肿瘤患者诊疗过程中的 COVID-19 防控

基于目前的流行病学调查结果^[7], COVID-19可通过呼吸道飞沫和密切接触等途径传播,在相对封闭的高浓度气溶胶环境中也有经气溶胶传播的风险,而在头颈肿瘤诊疗过程中涉及的内镜检查、气管切开及各类手术中能产生飞沫及气溶胶,稍有防护不当极易感染,存在较高的交叉感染风险和职业暴露危险^[13]。因此,国家卫生健康委等相关部门发布的COVID-19诊疗方案以及其他重要文件也提出,疫情期间实施各类诊疗活动时应强调COVID-19的积极防控^[7,27]。

依据传染病的防控经验,疫情期间本中心医患防护理念贯穿于整个头颈部恶性肿瘤的诊疗过程中。所有门诊患者均实行分时段预约就诊,医院设置多层次体温监测点,分诊护士严控候诊区,减少病患聚集,督促所有病患及家属戴好口罩。政府开放健康码后我院迅速应用于医患人员流动管理,实现“无接触式”查验,降低感染风险。对初诊患者严格排查分诊,具备流行病学、有发热及呼吸道症状的患者及时引导至发热门诊就诊^[28]。门诊接诊一人一诊间,在头颈外科门诊,减少不必要的口腔及咽喉部体格检查,对于有创检查或紧急气管切开术,应做到三级防护。

收治病患时严格把握住院指征,严格执行COVID-19筛查。基于现有COVID-19的流行病学认知^[7,16],本中心对所收治的38例头颈部恶性肿瘤患者均进行详细的流行病学调查、新型冠状病毒核酸筛检和胸部CT筛查,当全部筛检结果为阴性时才给予后续化疗或手术;对于COVID-19筛检阳性患者,立即上报疾控部门并转定点医院隔离治疗,同时根据流行病学调查确定的密切接触者应接受至少2周的医学观察^[7]。患者住院期间注意病床间隔,尽量做到一室一人,陪护家属最多一人。科室医务人员按照一级防护标准做个人防护,关键岗位医护人员根据风险等级选择二级或

三级防护^[27]。头颈部手术属于相对高风险暴露,麻醉师行气管插管时加戴护目镜及一次性隔离衣,同时手术室应控制人员数量。护理人员在护理患者,尤其是涉及口腔、喉、咽、及气道时,应更加关注防护。

患者住院期间需要重点关注体温监测和管理,注意与头颈肿瘤术后吸收热、切口感染、化疗导致的粒缺性发热、普通感冒以及各部位细菌性感染相鉴别。如术后出现发热($>37.3\text{ }^{\circ}\text{C}$),首先观察切口有无感染,必要时行切口分泌物和血液进行细菌培养和药敏试验,根据结果应用抗生素;若发热伴有上呼吸道感染症状应行急诊血常规、C反应蛋白(CRP)、血沉、肺部CT及核酸检测,必要时请相关学科会诊排查COVID-19^[28]。本组38例头颈部恶性肿瘤患者在诊疗期间有3例出现发热,其中1例为切口感染,1例为粒缺性发热,1例为肿瘤坏死感染导致的发热,均排除COVID-19,经治疗后恢复正常,随访2周,患者恢复顺利,整个诊疗过程中亦未发现医务人员感染COVID-19,防控效果良好。

3.3 COVID-19 疫情期间“互联网+医疗”在头颈肿瘤诊疗中的赋能价值

本次疫情期间,“互联网+医疗”的优势在疫情防控方面得到了赋能价值。互联网提供了预约挂号和检查、在线咨询和复诊、线上健康宣教和指导、心理疏导等功能,大大减少了医患双方的直接接触,可有效切断传播途径,成为COVID-19疫情防控的重要手段之一^[29]。因此,国家卫健委也专门发文推动医疗机构加强互联网诊疗咨询服务工作。头颈部恶性肿瘤患者治疗后常面临着反复复诊、健康宣教和生活指导的问题,“互联网+医疗”的优势也同样可以应用于这类患者,本中心各医疗组均开设了互联网医院的在线咨询和复诊功能,并且定期利用互联网开展微信视频连线咨询,便于患者出院后咨询各类康复问题和复诊事宜,而且可以开具线上处方,极大的减少了患者往返医院的频次,减轻患者负担,减少医患接触,不仅有利于疫情防控,而且有助于保持头颈肿瘤治疗的延续性,可以在今后的疫情防控中大力提倡^[30]。

总之,COVID-19疫情形势下,基于诊疗指南和临床实践,合理分流、科学防控,充分利用“互联网+医疗”的优势,在积极投身抗击疫情同时,保护肿瘤患者免受病毒感染,并做好患者的心

理支持，将疫情对治疗的影响降到最低并保证治疗的延续性是头颈肿瘤临床诊疗工作的可行策略。

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参考文献

- Zou L, Ruan F, Huang M, et al. SARS-CoV-2 Viral Load in Upper Respiratory Specimens of Infected Patients[J]. *N Engl J Med*, 2020, 382(12):1177–1179. doi: 10.1056/NEJMc2001737.
- Bedford J, Enria D, Giesecke J, et al. COVID-19: towards controlling of a pandemic[J]. *Lancet*, 2020, 395(10229):1015–1018. doi: 10.1016/S0140-6736(20)30673-5.
- Porcheddu R, Serra C, Kelvin D, et al. Similarity in Case Fatality Rates (CFR) of COVID-19/SARS-COV-2 in Italy and China[J]. *J Infect Dev Ctries*, 2020, 14(2):125–128. doi: 10.3855/jidc.12600.
- 中华人民共和国中央人民政府. 世卫组织将新冠肺炎命名为“COVID-19”[EB/OL]. [2020-02-12]. http://www.gov.cn/xinwen/2020-02/12/content_5478891.htm.
The Central People's Government of the People's Republic of China. The World Health Organization named the novel coronavirus pneumonia as “COVID-19”[EB/OL]. [2020-02-12]. http://www.gov.cn/xinwen/2020-02/12/content_5478891.htm.
- 丁香园·丁香医生. 新型冠状病毒肺炎疫情实时动态[EB/OL]. [2020-05-05]. <https://ncov.dxy.cn/ncovh5/view/pneumonia>.
Dingxiangyuan·Dingxiangyisheng. Real-time forecasts of the COVID-19 epidemic[EB/OL]. [2020-05-05]. <https://ncov.dxy.cn/ncovh5/view/pneumonia>.
- 中华人民共和国国家卫生健康委员会. 截至5月4日24时新型冠状病毒肺炎疫情最新情况[EB/OL]. [2020-05-05]. <http://www.nhc.gov.cn/xcs/yqtb/202005/9f8375d7ac9b4eda83515fd5fd4adf4.shtml>.
National Health Commission of the People's Republic of China. Up-to-date state of the COVID-19 epidemic as of 24 pm, 4th, May[EB/OL]. [2020-05-05]. <http://www.nhc.gov.cn/xcs/yqtb/202005/9f8375d7ac9b4eda83515fd5fd4adf4.shtml>.
- 国家卫生健康委办公厅, 国家中医药管理局办公室. 新型冠状病毒感染的肺炎诊疗方案(试行第七版)[EB/OL]. 国卫办医函〔2020〕184号. [2020-03-04]. <http://www.nhc.gov.cn/yzygj/s7653p/202003/46c9294a7dfe4cef80dc7f5912eb1989.shtml>.
General Office of National Health Commission of the People's Republic of China, Office of State Administration of Traditional Chinese Medicine of the People's Republic of China. Diagnosis and treatment scheme for novel coronavirus pneumonia (trial implementation 7th edition) [EB/OL]. Medical Letter of Office of National Health Commission [2020] No. 184. [2020-03-04]. <http://www.nhc.gov.cn/yzygj/s7653p/202003/46c9294a7dfe4cef80dc7f5912eb1989.shtml>.
- Yu X, Yang R. COVID-19 transmission through asymptomatic carriers is a challenge to containment[J]. *Influenza Other Respir Viruses*, 2020, doi: 10.1111/irv.12743. [Epub ahead of print]
- Liang W, Guan W, Chen R, et al. Cancer patients in SARS-CoV-2 infection: a nationwide analysis in China[J]. *Lancet Oncol*, 2020, 21(3):335–337. doi: 10.1016/S1470-2045(20)30096-6.
- 李进, 秦叔逵, 马军, 等. 中国临床肿瘤学年度研究进展2018[M]. 北京: 人民卫生出版社, 2019:139–163.
Li J, Qing SK, Ma J, et al. Annual research progress of clinical oncology in China 2018[M]. Beijing: People's Medical Publishing House, 2019:139–163.
- Duprez F, Berwouts D, De Neve W, et al. Distant metastases in head and neck cancer[J]. *Head Neck*, 2017, 39(9):1733–1743. doi: 10.1002/hed.24687.
- Schutte HW, Heutink F, Wellenstein DJ, et al. Impact of Time to Diagnosis and Treatment in Head and Neck Cancer: A Systematic Review[J]. *Otolaryngol Head Neck Surg*, 2020, 162(4):446–457. doi: 10.1177/0194599820906387.
- 徐凯, 赖小全, 刘争. 耳鼻咽喉头颈外科医务人员对新型冠状病毒感染防护的建议[J]. *中华耳鼻咽喉头颈外科杂志*, 2020, 55(2020-02-02). <http://rs.yiigle.com/yufabiao/1179569.htm>. doi: 10.3760/cma.j.issn.1673-0860.2020.0001. [网络预发表].
Xu K, Lai XQ, Liu Z. Advice on prevention and protection against COVID-19 infection for medical staff working in otorhinolaryngology head and neck surgery[J]. *Chinese Journal of Otorhinolaryngology Head and Neck Surgery*, 2020, 55(2020-02-02). <http://rs.yiigle.com/yufabiao/1179569.htm>. doi: 10.3760/cma.j.issn.1673-0860.2020.0001. [online prepublication].
- Xia Y, Jin R, Zhao J, et al. Risk of COVID-19 for patients with cancer[J]. *Lancet Oncol*, 2020, 21(4):e180. doi: 10.1016/S1470-2045(20)30150-9.
- 中华医学会检验医学分会. 新型冠状病毒肺炎病毒核酸检测专家共识[J]. *中华医学杂志*, 2020, 100(00):E003. doi: 10.3760/cma.j.issn.0376-2491.2020.0003. [网络预发表].
Chinese Society of Laboratory Medicine. Expert consensus on nucleic acid testing for COVID-19[J]. *National Medical Journal of China*, 2020, 100(00):E003. doi: 10.3760/cma.j.issn.0376-2491.2020.0003. [online prepublication].
- Zhao W, Zhong Z, Xie X, et al. CT Scans of Patients with 2019 Novel Coronavirus (COVID-19) Pneumonia[J]. *Theranostics*, 2020, 10(10):4606–4613. doi: 10.7150/thno.45016.
- 田文, 贺青卿, 张浩, 等. 新型冠状病毒肺炎疫情下甲状腺外科疾病规范化诊治流程指导建议[EB/OL]. *中国实用外科杂志*, 2020, <https://mp.weixin.qq.com/s/C1uA94IDv3TvyFQgHV25vg>.
Tian W, He QQ, Zhang H, et al. Guidance and suggestions of standardized diagnosis and treatment process of thyroid surgery[EB/OL]. *Chinese Journal of Practical Surgery*, 2020, <https://mp.weixin.qq.com/s/C1uA94IDv3TvyFQgHV25vg>.

- [18] 李彦豪, 沈琳, 李健, 等. 新型冠状病毒肺炎疫情下的结直肠癌患者化疗策略[J]. 中华胃肠外科杂志, 2020, 23(3):217-219. doi:10.3760/cma.j.cn.441530-20200225-00089.
- Li YH, Shen L, Li J, et al. Chemotherapy strategy for colorectal cancer under the outbreak of corona virus disease 2019[J]. Chinese Journal of Gastrointestinal Surgery, 2020, 23(3):217-219. doi:10.3760/cma.j.cn.441530-20200225-00089.
- [19] 中国抗癌协会. 关于肿瘤患者预防新型冠状病毒感染的专家建议[EB/OL]. [2020-02-05]. <https://mp.weixin.qq.com/s/wFA-0go3EPoo3DmSk6oPtQ>.
- Chinese Anti-Cancer Association. Expert advice on prevention against COVID-19 infection in cancer patients[EB/OL]. [2020-02-05]. <https://mp.weixin.qq.com/s/wFA-0go3EPoo3DmSk6oPtQ>.
- [20] Finley C, Prasad A, Camuso N, et al. Guidance for management of cancer surgery during the COVID-19 pandemic[J]. Can J Surg, 2020, 63(22):S2-4. doi: 10.1503/cjs.005620.
- [21] 李新营, 王琦, 何跃明, 等. 新型冠状病毒肺炎患者围手术期处理及防护的认识与思考[J]. 中国普通外科杂志, 2020, 29(2):142-146. doi: 10.7659/j.issn.1005-6947.2020.02.004.
- Li XY, Wang Q, He YM, et al. Understanding and reflection on perioperative management and strategy for prevention and protection in patients with novel coronavirus pneumonia[J]. Chinese Journal of General Surgery, 2020, 29(2):142-146. doi: 10.7659/j.issn.1005-6947.2020.02.004.
- [22] 黄隽, 胡元萍, 陈创, 等. 新型冠状病毒肺炎疫情特殊时期对乳腺癌治疗临床问题的若干思考[J]. 中国普通外科杂志, 2020, 29(2):153-160. doi: 10.7659/j.issn.1005-6947.2020.02.006.
- Huang J, Hu YP, Chen C, et al. Some considerations regarding clinical problems in breast cancer treatment during the special period of novel coronavirus pneumonia outbreak[J]. Chinese Journal of General Surgery, 2020, 29(2):153-160. doi: 10.7659/j.issn.1005-6947.2020.02.006.
- [23] 于洋, 关海霞. 分化型甲状腺癌的术前分子诊断的发展现状及前景思考[J]. 中国普通外科杂志, 2018, 27(5):622-628. doi: 10.3978/j.issn.1005-6947.2018.05.015.
- Yu Y, Guan HX. Preoperative molecular diagnosis of differentiated thyroid cancer: development status and future prospects[J]. Chinese Journal of General Surgery, 2018, 27(5):622-628. doi: 10.3978/j.issn.1005-6947.2018.05.015.
- [24] Zhao Z, Bai H, Duan J, et al. Recommendations of individualized medical treatment and common adverse events management for lung cancer patients during the outbreak of COVID-19 epidemic[J]. Thorac Cancer, 2020, doi: 10.1111/1759-7714.13424. [Epub ahead of print].
- [25] 江泽飞, 李健斌. 新型冠状病毒肺炎疫情下乳腺癌诊疗十个热点问题的思考[J]. 中华医学杂志, 2020, 100(10):721-723. doi: 10.3760/cma.j.cn112137-20200207-00218.
- Jiang ZF, Li JB. Ten hot issues on diagnosis and treatment of breast cancer under the outbreak of novel coronavirus pneumonia[J]. National Medical Journal of China, 2020, 100(10):721-723. doi: 10.3760/cma.j.cn112137-20200207-00218.
- [26] 黄耿文. 新型冠状病毒肺炎疫情下实施普通外科手术的思考和建设[J]. 中国普通外科杂志, 2020, 29(2):127-130. doi:10.7659/j.issn.1005-6947.2020.02.001.
- Huang GW. Thoughts and advices on performing procedures in general surgery during the outbreak of novel coronavirus pneumonia[J]. Chinese Journal of General Surgery, 2020, 29(2):127-130. doi:10.7659/j.issn.1005-6947.2020.02.001.
- [27] 国家卫生健康委办公厅. 关于印发医疗机构内新型冠状病毒感染预防与控制技术指南(第一版)的通知[EB/OL]. [2020-01-23]. <http://www.nhc.gov.cn/xcs/zhengcwj/202001/b91fdab7c304431eb082d67847d27e14.shtml>.
- General Office of National Health Commission of the People's Republic of China. Notice concerning the issuance of technical guidelines for the prevention and control of novel coronavirus infections in medical institutions(first edition)[EB/OL]. [2020-01-23]. <http://www.nhc.gov.cn/xcs/zhengcwj/202001/b91fdab7c304431eb082d67847d27e14.shtml>.
- [28] 郗洪庆, 田文. 新型冠状病毒肺炎疫情下甲状腺疾病诊治对策[EB/OL]. 中国实用外科杂志, 2020, <https://mp.weixin.qq.com/s/YyzsrG3W7eQ2JOJP2GOiUw>.
- Hao HQ, Tian W. Countermeasures for diagnosis and treatment of thyroid diseases amid COVID-19 epidemic[EB/OL]. Chinese Journal of Practical Surgery, 2020, <https://mp.weixin.qq.com/s/YyzsrG3W7eQ2JOJP2GOiUw>.
- [29] 周苑, 田帝, 周典. 基于UTAUT-DST模型的互联网医院新型冠状病毒肺炎疫情防控管理探索[J]. 中华医院管理杂志, 2020, 36:E006. doi: 10.3760/cma.j.cn112225-20200211-00110.
- Zhou Y, Tian D, Zhou D, et al. Investigation of prevention and control management of COVID-19 epidemic through internet-based hospitals using UTAUT-DST model[J]. Chinese Journal of Hospital Administration, 2020, 36:E006. doi: 10.3760/cma.j.cn112225-20200211-00110.
- [30] Gong K, Xu Z, Cai Z, et al. Internet Hospitals Help Prevent and Control the Epidemic of COVID-19 in China: Multicenter User Profiling Study[J]. J Med Internet Res, 2020, 22(4):e18908. doi: 10.2196/18908.

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