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·专题研究·

新型冠状病毒肺炎疫情期间乳腺外科运行情况分析

刘静[1]，钟玲[1]，谭璇妮[1]，张毅[1]，姜军[1]，齐晓伟[1,2]

（陆军军医大学第一附属医院 1. 乳腺甲状腺外科 2. 外科学教研室，重庆 400038）

摘 要 **背景与目的：**尽管目前国内新型冠状病毒肺炎（COVID-19）疫情得到了有效的控制，但国外病例仍在持续增加，防控形势依然严峻。本研究以陆军军医大学第一附属医院乳腺外科为例，分析总结新型冠状病毒肺炎疫情期间综合性三甲医院乳腺外科运行情况，为疫情期间及后疫情时期安全、高效地开展乳腺外科工作提供有效参考和经验做法。

方法：选取自 2020 年 1 月 31 日—2020 年 2 月 20 日 COVID-19 流行期间陆军军医大学第一附属医院乳腺甲状腺外科收治的 37 例乳腺癌患者，对其临床特征、防护手段及治疗效果等病例资料进行回顾性分析。对患者的入院和术前准备、术中防护、术后康复等关键环节，以及医护人员自我防护及心理疏导进行方法总结。对专科治疗及疫情防控的效果进行随访研究。分析在后疫情时期如何提升对潜在传染病风险的认知，结合乳腺外科的诊治特点，从手术指征把握、气溶胶管理和诊室防护等多方面加强疫情防控和职业防护工作。

结果：37 例乳腺癌患者经排除 COVID-19 风险后均接受手术治疗，平均手术时间为（152.23±46.19）min，平均术中出血量为（85.23±23.47）mL，无术中输血病例。在 37 例乳腺癌患者中，有 19 例患者接受术前 6~8 周期新辅助治疗，其中 7 例术后证实为病理学完全缓解。术后 2 例出现持续发热，经过隔离、监测体温及对症支持治疗后恢复正常，新型冠状病毒核酸检测排除 COVID-19 感染可能。经跟踪随访，患者及陪护人员均无发热、咳嗽、乏力等 COVID-19 疑似表现，相关医护人员同样未出现疑似病例，总体防控效果较好。

结论：在 COVID-19 疫情流行期间，在科学防控、竭力避免医患双方感染 COVID-19 的前提下，可结合当地疫情情况全力为乳腺癌患者提供有效治疗。应继续遵从“科学决策、人文服务”的精神，严格遵循上级下发的各类防控指南和管理规范，并依据实际完成乳腺癌患者的院前排查、术前准备、术中防护、术后康复等必要环节。严格在患者入院前及围手术期各环节遵循疫情防护规范、协调好疫情防控与专科诊治的关系，有利于最大限度地确保乳腺外科手术安全地完成，守护患者及医务人员的健康。

关键词 乳腺肿瘤；新型冠状病毒肺炎；外科手术；医学应对措施

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Analysis of operations of breast surgery during the COVID-19 epidemic

LIU Jing[1], ZHONG Ling[1], TAN Xuanni[1], ZHANG Yi[1], JIANG Jun[1], QI Xiaowei[1,2]

(1. Department of Breast Thyroid Surgery 2. Department of Surgery, First Affiliated Hospital, Army Medical University, Chongqing 400038, China)

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作者简介：刘静，陆军军医大学第一附属医院主治医师，主要从事乳腺肿瘤早期诊断及外科治疗新方法方面的研究。

通信作者：齐晓伟， Email: qxw9908@foxmail.com

Abstract

Background and Aims: Despite that the epidemic of novel coronavirus pneumonia (COVID-19) has been under effective control in China, the number of cases outside our country is continuously growing. So, the prevention and control situation is still grim. This study, taking the Department of Breast Surgery in the First Affiliated Hospital of Army Medical University as an example, was designed to analyze and summarize the operations of breast surgery in a comprehensive tertiary hospital during the epidemic, so as to provide effective reference and experiential practice for conducting safe and efficient breast surgery work during epidemic and post-epidemic periods.

Methods: Thirty-seven patients with breast cancer admitted in the Department of Breast Thyroid Surgery of the First Affiliated Hospital of Army Medical University during the COVID-19 epidemic period of January 31, 2020 to February 20, 2020 were selected. The data of the patients including the clinical characteristics, protective measures and treatment effects were retrospectively analyzed. The main points of methods for patients' admission to hospital, preoperative preparation, intraoperative protection and postoperative recovery, as well as the self-protection and psychological counseling of the medical staff were summarized. The effects of specialized treatment and epidemic prevention and control were identified by follow up. The details for how to improve the cognition of potential risk for infectious diseases, and how to strengthen the prevention and control of epidemic disease and occupational protection during the post-epidemic period were analyzed from the aspects of surgical indications, aerosol management and clinic protection in combination with the diagnosis and treatment characteristics of breast surgery.

Results: Thirty-seven patients received surgical treatment after the exclusion of the risk of COVID-19. The mean operative time was (152.23±46.19) min, the average intraoperative blood loss was (85.23±23.47) mL, and no intraoperative blood transfusion was required in any of the patients. Among the 37 breast cancer patients, 19 cases underwent 6 to 8 cycles of preoperative neoadjuvant therapy, of whom, complete pathological remission was obtained in 7 cases after surgery. Prolonged fever occurred in 2 patients after operation, which returned to normal after isolation, body temperature monitoring and symptomatic treatment, and COVID-19 was excluded by nucleic acid testing for SARS-CoV-2. After follow-up, no suspected COVID-19 symptoms such as fever, cough and fatigue were noted in any of the patients or their accompanying relatives, and also no suspected cases were observed among the relevant medical staff.

Conclusion: During the epidemic period, on the premise of scientific prevention and control, and full avoidance of COVID-19 infection in both doctors and patients, aggressive treatment can be provided to breast cancer patients according to the local epidemic situation. The principles of "scientific decision-making, and humanistic service" should be continuously followed, and the various prevention and control guidelines and management norms issued by superiors should be strictly obeyed, and the necessary elements such as prehospital screening, preoperative preparation, intraoperative protection and postoperative recovery of the breast cancer patients should be completed according to the actual situation. Rigorous compliance with the protection measures against epidemic in all aspects of the pre-admission and perioperative period of the patients, and coordinated relations of the epidemic prevention and control with the specialized treatment, may maximally ensure the safe completion of breast surgery and protect the health of the patients and medical personnel.

Key words Breast Neoplasms; COVID-19; Surgical Procedures, Operative; Medical Countermeasures

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2019年12月，湖北武汉暴发新型冠状病毒性肺炎（COVID-19）疫情。2020年1月20日，国家卫生健康委员会将COVID-19纳入乙类传染病，并按甲类传染病管理[1]。截止2020年3月7日24时，全国累计确诊患者80 695例，累计死亡患者3 097例[2]。COVID-19最常见的临床症状是发烧、咳嗽及呼吸困难、头痛、肌肉酸痛、腹泻和疲劳[3-5]等。COVID-19的潜伏期约为2~14 d，中位潜伏期4 d，潜伏期内病毒具有人传人能力，给疫情防控和疾病诊疗工作带来了极大的困扰和挑战[6]。

乳腺癌是乳腺外科最具代表性和最重要的疾病，其发病率和病死率均居我国女性恶性肿瘤的首位，早期诊断和治疗是有效提升肿瘤生存率的关键，若延误治疗可能引发癌症病灶的进展，增加治疗难度并影响患者预后[7-12]。面对疫情对乳腺癌患者诊治带来的巨大影响，为科学防控COVID-19同时有序开展乳腺癌患者诊疗服务，我科在国内率先制定并发布《新型冠状病毒感染的肺炎疫情期间乳腺疾病患者诊治流程管理》[13]。本次研究纳入了37例按上述流程收治入院并接受手术的乳腺癌患者，旨在分析疫情流行期间乳腺外科疾病的收治特点，并对患者的入院筛查、术前准备、术中防护、术后康复等环节的做法进行总结，为各医疗单位在疫情期间的专科诊疗提供案例。

1　资料与方法

综合国家相关政策法规[14]、业内专家意见[15-19]及我院实际情况[13, 20]，制定疫情期间乳腺癌手术患者的收治范围，限期收治：⑴ 临床及影像学高度怀疑乳腺癌但穿刺未确诊，且肿块较大无法在日间手术室行局部麻醉下肿块切除活检的患者；⑵ 穿刺确诊为乳腺癌，但不符合新辅助治疗指征、需直接进行手术的患者；⑶ 完成全程新辅助治疗需要手术的乳腺癌患者；⑷ 进展期乳腺癌出现肿瘤破溃、出血及感染等严重情况。暂缓收治：⑴ 确诊/疑似COVID-19未治愈的患者；⑵ 2周内与确诊/疑似COVID-19人员有密切接触史的患者；⑶ 2周内有COVID-19高发区域旅居史的患者；⑷ 2周内有发热、咳嗽病史的患者；⑸ 胸部CT提示不排除COVID-19的患者。

2　结　果

2020年2月3日—2020年2月28日期间，共收治乳腺癌患者37例，均行手术治疗。年龄范围32~65岁，平均年龄为45.18岁。肿瘤部位：左侧21例，右侧16例。术前接受过新辅助治疗的患者25例。手术方式：单纯乳房切除术+腋窝前哨淋巴结探查活检术12例，乳腺癌改良根治术19例（其中合并纤维腺瘤切除术、锁骨上淋巴结清扫术及锁骨上下淋巴结清扫术各3例，合并甲状腺癌根治术1例），乳腺癌局部扩大切除术+腋窝前哨淋巴结活检术3例，乳腺癌局部扩大切除术+腋窝淋巴结清扫术3例。37例患者均顺利完成手术，手术时间范围为70~260 min，平均手术时间为（152.23 ± 46.19）min；术中出血量范围为20~280 mL，平均术中出血量为（85.23 ± 23.47）mL。

术后病理结果提示：浸润性导管癌30例（其中1例合并黏液癌，2例合并神经内分泌癌；Luminal A型5例，Luminal B型11例，HER-2扩增型4例，三阴型10例），浸润性小叶癌2例，导管内癌3例，Paget病2例。37例患者中，19例患者接受术前6~8周期新辅助治疗，其中7例术后证实为病理学完全缓解。根据国内外指南，结合患者既往治疗方案及术后病理结果，制定患者术后综合治疗方案。

经个人史及流行病学调查发现，所有患者均为重庆市居民。所有患者术后均进行生命体征及临床症状的监测。其中重点关注2例发热患者，发现发热症状后立刻安置于单人隔离病房，监测期间并未发生咳嗽、乏力等特异性呼吸系统症状，分析原因可能在于手术过程的吸热，及时抗炎处置后体温下降至正常水平，同时采集标本进行核酸检测确认并未感染COVID-19。截至发稿前，37例术后患者及陪护人员均未产生发热、咳嗽、乏力等COVID-19疑似表现，我科相关医护人员均未出现疑似病例，总体防控效果较好。

3　讨　论

3.1　平衡疫情防控与肿瘤救治的关系

当前，国家对于疫情已启动重大公共卫生事件的一级响应，我院也已抽调部分医务人员赴一线帮助工作，现有医务人员较为缺乏；当前情况时间紧、任务重，我院面临疫情防控、疾病诊疗及医疗资源分配等多方面关键问题。交通管制、社区封闭管理等对患者的就诊同样带来不利影响。因此，如何高效完成疫情防控任务，同时为肿瘤患者及时提供有效医疗服务是疫情期间面临的关键科学问题[13, 15, 19, 21-24]。

乳腺疾病手术一般均属于限期手术，可以根据实际情况适当推迟，但推迟具有一定限制。既往研究表明乳腺癌患者术后等待化疗时间的增加可降低其生存率，且等待时间越长，其死亡风险越高。乳腺癌患者需按时至医院进行化疗，但当前形势下，合并乳腺癌的患者具有更高的COVID-19感染风险，需要进行慎重筛查与防护。

疫情期间，对于乳房肿物确诊良性的患者应保持观察随访，疫情恢复后择期处理；而对于疑

似恶性的乳房肿物患者，应先接受穿刺活检，依据病理结果进行不同处置[19]：⑴ 未发现癌细胞：1~2个月后复出，待疫情结束后再作进一步处理；⑵ 发现癌细胞、肿物直径<3 cm：可收治入院行乳腺癌手术；⑶ 发现癌细胞、肿物直径达3 cm或以上：可根据分子分型给予术前新辅助治疗。对于手术者，依据肿瘤大小及腋窝淋巴结状态决定手术方式，本次研究中37例患者依据自身病情、主观意愿、经济条件等情况进行综合评估，最终接受单纯乳房切除术12例，改良根治术19例，保乳根治术6例。所有患者均取得了满意的专科治疗效果，同时患者及家属均未产生发热、咳嗽、乏力等COVID-19疑似表现。

3.2 加强疫情筛查，规避院内感染

COVID-19疫情期间，肿瘤专科医生尤其是非疫情严重地区的医生应在充分保证疫情防控安全的情况下，全面权衡不同患者的病情，个体化选择最佳治疗方式。我们主要通过以下手段和方法对患者进行排查，竭力规避院内感染的发生，同时积极开展乳腺外科工作。

线上预约：开通线上平台，全面实行预约制，提前了解患者及家属流行病学史，做好初步排查；尽可能做到随到随诊、错峰就诊，减少因等待或相互接触引发的感染风险。门诊排查：所有患者及陪护人员（限1人）首先在门诊接受严格COVID-19排查流程。主要内容为：⑴ 流行病学史；入院前2周内是否存在疫区旅居史、与疫区人员接触史或与确诊患者的流行病学接触史；⑵ 临床症状。是否存在发热、咳嗽、乏力等相关临床症状；⑶ 检查检验。除乳腺外科手术准备的常规检查外，还需额外完成COVID-19的筛检，包括胸部CT、冠状病毒核酸检测（若CT发现可疑病灶）、血常规及C反应蛋白等重点指标。对于COVID-19初筛过程中存在疑似症状的患者或家属，应立即引导至发热门诊。住院管理：⑴ 患者入院即明确好主管医师和责任护士，负责对患者及家属宣讲疫情流行期间的管理规定，并签署安全责任承诺书。严格执行一患一陪护制度；⑵ 对病区进行分级设置，新入院患者及家属必须至少观察48 h以上。围手术期管理：⑴ 术中防护。除插管期间外，患者全过程需正确佩戴外科口罩；⑵ 术后康复。严控病房人员流动并对发热、咳嗽等呼吸系统症状进行实时监测。对于单纯发热者，应依据临床表现及辅助检查综合鉴定发热原因；对于发热伴呼吸系统症状者，应及时上报并单人隔离，依据影像学或核酸结果决定是否转诊至专科医院救治；⑶ 线上诊治。指定责任护士通过电话或网络平台对患者进行病情随访及心理咨询。若未出现影响乳腺癌预后的严重、紧急症状，应以医护人员的远程指导为主，尽量延后复查时间，规避路途或复查过程中出现的潜在感染风险。主治医师应与居家患者定时沟通与随访，适时评估康复效果并调整辅助治疗方案，包括口服化疗药物、适当推迟医院化疗等[13]。加强自我防护及环境准备：针对我科医务人员在诊疗过程中常见的工作，划分为不同的风险等级，并针对性选择对应的防护手段，同时严格根据国家标准实施环境消毒[25]。

3.3 做好总结反思，常态职业防护

近期，COVID-19已逐渐获得控制，但应充分反思疫情的影响，一方面做好面临COVID-19在国际上长期存在的可能，另一方面为后疫情时期的防控做好准备[26-27]。本次疫情不仅在当前疾病防控方面对乳腺外科团队提出了挑战，而且提醒我们在后续临床救治中应加强职业防护，提高对乳腺癌手术中职业暴露的认识及防护。既往对于职业暴露的危害认识不足，因此，建议在后续的职业防护中做到以下几点[28-29]：⑴ 人员防护常态化。包括门诊及病区的相关人员，应加强口罩、手套等日常防护，必要时着护目镜、防护服，在诊疗场所加强通风及空气净化设施的安装和维护；⑵ 住院筛查标准化。后续应继续规避潜在的COVID-19风险，在收治病人时积极将流行病学调查、胸部CT等手段纳入筛查项目，构建从筛查到确诊或排除的一整套常规流程；⑶ 气溶胶管理严格化。气溶胶是疾病传染的介质，应建立规范的气溶胶管理制度，尽力规避气溶胶暴露引发的职业危害。

疫情就是命令，防控就是责任。COVID-19的突然暴发与流行给专科常规医疗带来巨大的挑战，在人手紧张、工作繁重的情况下，如何高效应对疫情的流行、协调疫情防控与专科诊治的关系是当前我科面临的严峻问题。我们应在思想上给予高度重视、加强防护意识，遵从“科学决策、人文服务”的精神，严格遵循上级下发的各类防控指南和管理规范，并依据我科实际完成COVID-19患者的院前排查、术前准备、术中防护、术后康复等必要环节。最大限度地确保乳腺外科手术安全地完成、守护患者及医务人员自身的健康。

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