·综述·

多学科诊疗模式在胃癌诊疗中的应用

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【摘要】 胃癌是世界范围内最常见的恶性肿瘤之一,随着胃癌基因表型和新药物的不断更新,其治疗的复杂程度也在不断增加。多学科诊疗(MDT)是一种有效的解决方案,其不但可以实现信息共享,针对每例胃癌患者制订个体化治疗方案,提高胃癌的诊疗质量,更能改善患者的预后,延长胃癌患者寿命。第一,MDT可以提高早期胃癌的检出率,达到“早发现,早诊断,早治疗”的目的;第二,MDT讨论可以使胃癌患者的临床分期更加准确,减少微小转移病灶的遗漏率,从而为患者制订最佳的治疗方案;第三,MDT会议可以促进不同学科的专家进行讨论,避免了许多不必要的检查,制订合理的诊疗流程,缩短患者开始治疗时间,减少患者住院费用,缩短住院时间;第四,MDT讨论可以针对每例胃癌患者制订个体化治疗方案,甚至多学科协同手术,提升患者手术疗效;第五,MDT讨论可以让不同专科之间实现信息共享,不但可以从多个方面对胃癌患者进行评估,有时还可以引入新技术或新药物,对患者实施精准治疗;第六,MDT模式可以为年轻医生提供学习机会,树立患者是一个整体的治疗理念;第七,MDT可以展现医院的治疗水平,提高医院效率。笔者通过阅读国内外文件,认为MDT诊疗模式符合现代个体化治疗、精准医疗和整合医学概念,高效地利用医疗资源,提升患者受益度,具有进一步推广的临床应用价值。

【关键词】 多学科诊疗; 胃癌; 规范化治疗

Application of multidisciplinary team treatment model in the treatment of gastric cancer

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【**Abstract**】 Gastric cancer is one of the most common malignant tumors worldwide, and the complexity of its treatment is increasing as the genetic phenotype of gastric cancer and new drugs are constantly updated. The multidisciplinary treatment (MDT) model is an effective solution that can not only realize information sharing, formulate individualized treatment plan for each gastric cancer patient, improve the quality of gastric cancer treatment, but also improve the prognosis and prolong the life span of gastric cancer patients. Firstly, MDT can improve the detection rate of early gastric cancer and achieve the purpose of "early detection, early diagnosis and early treatment". Secondly, MDT discussion can make the clinical staging of gastric cancer patients more accurate and reduce the rate of missing small metastatic lesions, so as to formulate the best treatment plan for patients. Thirdly, MDT meeting can promote the discussion among experts of different disciplines and avoid the problem of metastatic lesions. experts from different disciplines to discuss, avoiding many unnecessary examinations, formulating reasonable treatment flow, shortening the time for patients to start treatment, and reducing patients´ hospitalization cost and hospitalization time. Fourthly, MDT discussion can formulate individualized treatment plan for each gastric cancer patient, and even multidisciplinary collaborative surgery to improve patients´ surgical efficacy. Fifthly, MDT discussion can enable information sharing among different specialties. Not only can gastric cancer patients be evaluated from multiple aspects, sometimes new technologies or new drugs can be introduced to implement precise treatment for patients. Sixthly, MDT model

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can provide learning opportunities for young doctors and establish the treatment concept of patients as a whole. Finally,MDT can show the treatment level of hospitals and improve their efficiency. By reading domestic and international documents,the author believes that the MDT treatment model is in line with the modern concepts of individualized treatment,precision medicine and integrative medicine,efficiently utilizes medical resources,enhances patient benefit,and has clinical application value for further promotion.

【Key words】 Multidisciplinary treatment; Gastric cancer; Standardized treatment

胃癌(gastric cancer,GC)是世界上第5位常见的恶性肿瘤,也是癌症相关死亡率的第四大原因[1]。中国胃癌负担很高,2019年全球疾病负担研究指出, 中国的伤残调整寿命年(disability adjusted life year,DALY)占全球胃癌总人数的44.21%[2]。在中国,胃癌是第二大常见癌症,也是癌症相关死亡的第二大原因,每年新增胃癌患者4万人,新发和死亡患者占世界胃癌患者的40%[3-4]。

2013年版美国癌症综合网 (National Comprehensive Cancer Network)指南推荐胃癌的诊断和治疗应在多学科诊疗(multidisciplinary treatment, MDT)模式下完成[4]。此前已有许多研究已经证实了MDT在胃癌治疗中的有效性[5-12]。一般来说,MDT是由不同专业的专家组成,共同研究特定肿瘤。这个团队经常会约定一个时间,坐在一起共同探讨新转诊或入院的患者,辅助疾病的诊断和治疗,最后综合各方意见制订一项个体化治疗方案[8,13-17]。

1 多学科诊疗在胃癌早期诊断中的作用

早期胃癌(early gastric cancer,EGC)是指癌组织仅局限于黏膜层或黏膜下层,无论有无淋巴结转移,由于其病变非常复杂和微小,在胃镜检查时可能会遗漏而使得有时胃镜诊断很困难。此外,内镜医生可能由于其重视程度低、识别能力差、活检不规范和科室之间缺乏沟通和交流等也是早期胃癌容易漏诊或误诊的原因。在我国,胃癌的早期检出率仅为5%~20%,远低于其他国家[18]。需要特别指出的是早期胃癌术后5年生存率可达90%以上[19], 而进展期胃癌术后5年生存率低于30%[20]。因此,对早期胃癌的早发现、早诊断、早治疗是提高胃癌患者生存率的至关重要的策略[18-20]。新乡医学院附属医院一项研究通过2年之内两个不同时间段(MDT前与MDT期)对60 800例患者行胃镜检查发现,MDT下早期胃癌的检查率可从9.09%提高至23%,多因素及单因素分析结果均提示MDT可提高早期胃癌的检出率[7]。因此,建立MDT团队,既能不断提高各科室医生对EGC的认识,提高诊断水平,更可以提高组织活检阳性率。早在1990年,Lansdown等[21]病理学家就阐述了,各个国家由于其诊断标准不同,导致病理学家之间在病理诊断方面存在差异,将发育不良标本交予专家小组审查可提高诊断准确性。所以加强与病理科之间的合作,有利于标准化处理标本和切片,统一诊断标准。由于我国人口众多,经济条件较差,对每例患者进行胃镜检查是不现实的,因此与胃肠外科专科合作,对胃肠外科医生筛选出来的高危患者进行胃镜检查可以极大地避免医疗资源浪费,减少了很多因素混淆,提高胃癌检出率,甚至对高危患者使用加强胃镜检查,如M-NBI下的靶向活检[22],极大地提高了检出EGC的准确性、敏感性和特异性,而且加强了内镜医生对于高危胃癌患者病理特征的认识。无痛舒适的胃镜检查得益于与麻醉科之间的合作,无痛胃镜检查可使胃蠕动减慢,减少患者恶心呕吐反应,消除患者恐惧,有助于对可疑病变进行强化胃镜检查。而与影像科医生之间的合作,则有助于提高各科室对早期胃癌影像学特征的认识,可以减少很多微小病灶的遗漏率。因此,MDT不但可以提升患者舒适度,避免医疗资源浪费,还可以综合各方面考虑患者的检查结果,提高各科室水平及EGC的检出率。

2 多学科诊疗在胃癌分期中的作用

胃癌治疗的选择基于疾病阶段、患者的健康状况及患者的偏好,因此准确的临床分期对于确保选择适当的分期治疗以及向患者及其家人提供真实的预后信息至关重要。Davies等[11]通过对118例患者分别使用计算机断层扫描(computed tomography,CT)、超声内镜检查术(endoscopic ultrasonography,EUS)、腹腔镜超声 (laparoscopic ultrasonography,LUS)和MDT会议对分期进行比较,以最终组织病理学(pTNM)分期作为金标准,最终结果显示MDT对于胃癌的T和N分期最为准确,其准确率达到了88%~89%,并且对于淋巴结疾病的评估优于每一个单独模式。另一项结果很好的对其原因做出了阐述,MDT代表了各科室专家一种真正的共识, 每一种术前评估对疾病分期都有贡献,而不单纯依赖某一种检查方式, 从而提高了分期的准确性[23]。MDT提高临床分期准确性的原因可能是多因素的。总体来说:第一,每一个单独检查的结果都会被其他专家所认真研究; 第二,MDT会议还提供了对相关影像学检查图像进行第一次检查的机会。这不单单是对某个检查结果的再补充,而是MDT团队各成员之间的反思和讨论。

3 多学科团队诊疗在缩短患者开始治疗时间中的作用

胃癌是一种异质性疾病,在制订诊疗计划前,往往需要进行大量的治疗准备,例如:各种检查以确定肿瘤状态然后再请会诊,让相应专家会诊给予诊疗意见,甚至再次行进一步检查,然后检查结果出来后再次请其会诊,甚至检查

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结果新增了其他专科方面异常，还得请相应专科会诊。在这种诊疗模式下，不仅浪费了患者进行诊疗的时间，做了大量检查，加重了患者焦虑的心情，而且还花费了医护人员大量的精力，降低了科室床位周转率和利用率，浪费了大量的医疗资源。此前，有研究显示开始治疗时间的增加与肿瘤死亡率的增加有关[24-27]。胃癌是一种复杂的疾病[28]，MDT 可以统筹管理，带来更好的结果。Michelle 等[29]一项回顾性分析，共纳入了 100 例(MDT 组 50 例.非 MDT 组 50 例)，对两组患者开始治疗时间进行比较，研究结果表明 MDT 的出现可以简化治疗准备流程，极大缩短了开始治疗时间(从 84.1±12.3 d 降至 32.3±15.2 d)，并且 MDT 审查减少了不必要的分期次数，平均研究次数从每例患者 3.8 次减少至 2.2 次。因此，由于胃癌 MDT 的建立，患者在进行干预之前以一种连续方式进行检查，完成进入治疗阶段所需的所有步骤，缩短了开始治疗所需时间，不但有利于整合和充分利用医疗资源，而且有利于增强患者治疗信心。

4　多学科诊疗在胃癌治疗过程中的作用

在过去这些年中，随着胃癌多模式治疗的快速发展，进一步强调了对 MDT 模式的需要[9,30]。与传统模式相比，MDT 强调以患者为核心，多学科之间进行讨论，为患者制订最合适的个体化治疗方案。MDT 加强了科室之间的信息沟通，全方位为患者考虑。周逢强等[5]研究了 MDT 模式(45 例)与非 MDT 模式(78 例)治疗的 123 例胃癌患者，结果显示：MDT 模式下新辅助治疗中，3 年随访过程中 MDT 组大约 20.0%的患者出现复发和远处转移，明显小于非 MDT 组的 44.9%，且 MDT 组有 8.9%患者死于复发或转移也明显小于非 MDT 组的 25.6%。此外，我国华西医院[31]总结了 467 例胃癌在 MDT 诊疗模式下患者的术前护理展示出了积极的结果，进一步肯定了 MDT 模式在胃癌治疗中的获益。中山大学附属第七医院何裕隆团队[32]通过回顾性分析 394 例进展期胃癌患者，232 例和 162 例胃癌患者分别被纳入 MDT 组和非 MDT 组，生存分析结果显示 MDT 组 3 年生存率为55.6%，与非 MDT 组 3 年生存率 46.1%有显著差异，并且通过多因素分析表明 MDT 干预可降低进展期胃癌的死亡率。可见在胃癌的治疗中，其治疗的连贯性和阶段性在 MDT 模式下得到了很好的监督，更好地把握了手术的时机，为后续治疗提供了良好的治疗环境。在 2011 年欧洲一项多中心前瞻性研究纳入了 224 例患者随机分为围手术期化疗组及单纯手术组，研究结果表示，胃癌的围手术期化疗比单纯手术带来了更好的 R0 切除率、DFS 和 OS[33]。2016 年欧洲临床肿瘤学会(European Society for Medical Oncology, ESMO)[34]和 2018 年日本第 5 版胃癌治疗指南[35]均提到了关于胃癌诊治化疗可以改善疾病症状和延长生存期。因此，对于局部晚期或者能够接受转化治疗的胃癌患者在经过其他领域专家仔细检查后，使用某些治疗或者药物后将分期降到可行根治性切除的操作水平，这些患者在 MDT 的干预下得到了改善。近些年来胃癌的免疫治疗引起了各个领域专家的关注，但在免疫治疗组免疫细胞的耗竭和免疫相关不良反应(如心肌炎、免疫相关性肺炎、免疫相关甲状腺炎、剥脱性皮炎等)[36]，也为胃癌的治疗带来了极大的困恼，这种情况下，如能与各个相应专科建立联系，不但能得到很好的专科化治疗，甚至在不耽误治疗进程情况下将不良反应防患于未然[37-39]。已有很多研究证实 MDT 可以使胃癌患者生活质量得到提高，而且可以降低不良反应发生率并改善患者预后[10,12,32,40-43]。营养健康状况是临床医师对胃癌患者关注的另一个重点[44-46]，2019 年韩国通过对 1415 例接受 D_2 胃癌切除术患者研究，分析在其术后 3、6 和 12 个月营养参数的预后意义，证实了营养状况是胃癌患者的独立预后因素，对营养较差的患者进行营养支持有利于预后[47]。因此，定期对胃癌患者进行营养风险筛查，加强与营养科之间的合作能够对胃癌患者制订一个合适的营养治疗计划，为胃癌患者带来更好的获益。因此，笔者认为在经过 MDT 会议后，可以为胃癌患者制订良好的策略，例如：改善营养状态，治疗各种基础疾病，调整术前患者常用药方案或者剂量，完善各种检查，制订术前放化疗方案、预防和治疗化疗和免疫治疗相关不良反应甚至介入治疗时机，术前辅助治疗的连贯性和阶段性，手术时机，手术多学科参与，术后辅助治疗疗程，术后随访等等，这些都为患者带来积极的影响，改善患者预后。

5　多学科诊疗在精准治疗中的作用

近年来，“精准医学”越来越受重视，体现了对疾病的认识更加精确、外科治疗精准化和微创化。胃癌目前主要治疗手段还是以手术治疗为主的综合治疗，而胃癌的精准治疗在于微创、脏器保护和加速康复三个要素。因此，精准的外科治疗包括精准的术前评估、个体化的临床决策、合理的手术方式和精细的手术操作、精准的围手术期管理[48-50]。MDT 会议可以对胃癌患者术前状态有一个精准的评估并给予及时的干预，改善患者术前状态，甚至控制对肿瘤实施干预，为患者手术治疗打造一个良好的环境；MDT 会议讨论可以对术前检查结果做一个精细的研究和综合的考量，综合各方意见制订一个个体化的治疗策略，使得术者在术前对患者有一个清晰和充分的认识，对手术方式的选择和手术操作在进行充分的准备甚至在脑海中演练，分析各种术中可能出现的意外状况，并查询资料和综合各方意见，想办法解决甚至避免这些状况的发生，减轻了患者的创伤和加强了对患者正常组织或脏器的保护，避免术中出现意外状况而导致术者不知所措的情况；MDT 会议对患者术后状态也有一个大概的预估，甚至对患者术后进行跟进或者转科行专科化治疗，加快了患者术后康复，增强了患者的信心；另外，对患者术后肿瘤结果进行详细的病理分析甚至分子检测，予合适方案和敏感的药物治疗，改善患者预后，提高胃癌患者总生存率，延长生存时间[51-62]。

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6 多学科诊疗对于年轻医生的作用

MDT会议将各科室专家汇聚一堂，每一次MDT会议都不失为是一次高水平的学术会议，是各专科之间高水平、新知识和高端技术的碰撞，是年轻医生难得的学习机会。现阶段的医生越来越专科化，甚至只专精于某一种疾病的治疗，这很容易导致其思维固化，将患者看成是一种病而非一个整体。这种情况由其对于年轻医生影响更大，年轻医生正处于知识塑性阶段，所见所闻都不足以支撑他去全方位为患者考虑，这样很容易造成其盲目的为患者开立检查甚至仅对患者进行单一的治疗，而疏忽了患者是一个整体的概念。而MDT会议既是开拓见识，学习新知识和新技术的地方，也是为年轻医生答疑解惑的地方。可以说MDT会议既有学术会议的知识性的一面，也有相互辩论的争辩赛的一面，对于年轻医生来说是一次难得的学习机会[63]。

7 诊疗对展现医院治疗水平的作用

MDT模式不但提高了胃癌患者在诊治过程中的关怀感，而且延长了胃癌患者的生存时间。体现医院各科室之间的团结协助，获得了患者的信任，向社会展示了医院的治疗水平，很大程度上避免了医疗资源的浪费。

MDT模式在肿瘤治疗中越来越受到重视，很多综合性医院都相继开展了MDT会议，也开展了很多研究来证实MDT在肿瘤治疗中的作用。而胃癌的MDT模式已得到肯定。通过MDT会议共同制订的方案，无论是准确性还是实效性都要高于单一学科专家的治疗。其不但可以提高EGC的检出率，提高胃癌临床分期的准确性，缩短开始治疗所需时间，延长患者生存时间，提高生存质量，达到个体化、精准医疗和整合医学的目的，还可以提高年轻医生的技术水平，体现医院的治疗水平。但目前关于胃癌MDT研究缺乏可信度，笔者希望未来能够有大规模、多中心的胃癌MDT的前瞻性研究，进一步验证MDT在胃癌诊疗中的作用，真正将MDT纳入胃癌的规范化治疗，甚至写入指南。

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