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with a slight increase in size (Fig. 4). Her right upper extremity currently has normal motor function, and she is employed full time.

**DISCUSSION**

As desmoid tumors are rare, benign, and with no metastatic potential, there is controversy as to the optimal treatment. Although resection with clear margins is ideal, there are still cases with local recurrence after a wide local excision. Conversely, there are also cases of positive margins without subsequent disease progression. Over the last decade, treatment has shifted toward a “wait-and-see” approach focusing on conservative care. Fiore et al. showed that a wait-and-see approach had comparable rates of progression-free survival at the 5-year mark, when compared with medical therapy, including hormonal therapy, low-dose chemotherapy, NSAIDs, and imatinib mesylate. However, roughly 50% of patients in either group had progression of their tumor, suggesting that surgery should be reserved for aggressive cases. While margin status is usually of utmost importance for surgical resection, desmoid tumors challenge this ideology, as margin status does not provide prognostic value in the development of disease.

Of the extra-abdominal fibromatoses, only 12% arise in the head and neck region, and this location may be more aggressive than the abdominal wall possibly due to restricted anatomy, vital vasculature, and neural structures. Of the head and neck desmoid tumors, Kruse et al. found that neither age, sex, nor localization led to a difference in outcomes. Hoos et al. found that only 9 of their 21 head and neck desmoid patients had full resection without involvement of surrounding structures, with 8 having good functional outcomes and 13 having persistent functional problems. They concluded that due to uncertain rates of recurrence reduction with negative margins, the goal of surgery should be function-sparing, rather than complete resection.

Adjunctive radiotherapy is often added to unresectable desmoids or those with positive margins; however, complications such as tissue fibrosis, radiation-related cancer, and skin damage may be significant. Hoos et al. conclude that there was not strong evidence to support the use of radiotherapy in the treatment of head and neck desmoids, regardless of margin status. Consequently, radiation-related morbidity must carefully be weighed against the benign nature of desmoids. Despite the risks, radiotherapy following resection is still used in some cases, and may have the most utility in instances with recurring desmoids.

Chemotherapy has been reserved for failure of surgery or radiation. However, some newer studies show an early response, achieving disease stabilization in two-thirds of patients. This is an area of active research and may ultimately shift treatment guidelines for desmoid tumors. Gounder et al. examined the role of sorafenib as an adjuvant treatment, and found 16 of the 22 symptomatic patients had clinical improvement within 2 weeks. Other medical therapies such as tamoxifen, NSAIDs, and various
chemotherapy regimens have been used, but there is no consensus on a preferred regimen.\textsuperscript{3,4}

In our patient, surgical excision confirmed the diagnosis but, due to the proximity of the tumor to the brachial plexus and the significant risk of functional deficits should aggressive resection be attempted, decision was made by our multidisciplinary tumor board to prioritize medical management even with local recurrence. If she continues to worsen clinically, particularly if local progression causes upper extremity weakness or significant pain, we may consider operative intervention with repeat resection and nerve reconstruction.

CONCLUSIONS
Desmoid tumors are a rare and challenging disease to treat. Care needs to be taken to preserve function of involved structures because recurrence is common, even with negative margins. A conservative “wait-and-see” approach may lead to optimal patient outcomes, but a multidisciplinary team utilizing a spectrum of therapies is key, as tumors are likely to progress with no one single treatment option demonstrating a high efficacy.

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